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ROUTES

IN

TIBET.

PREPARED BY

GENERAL STAFF, HEADQUARTERS, INDIA.

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INDIA



SIMLA:

PRINTED AT THE GOVERNMENT MONOTYPE PRESS.

1910.

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Route No.	From	To	Via
1	Siliguri (Darjeeling)	Saitu (Sachu) ..	Jelep La, Gyantse, Lhasa.
2	Ta-chien-lu (Yunnan)	Leh (Ladakh) ..	The Junglam-Lhasa-Shigatse, Gartok.
3	Sultanpur (Kulu) ..	Rudok.	
4	Lari (Spiti border) ..	Tashigong (on the Indus).	
5	Simla	Gartok	Shipki pass.
6	Shipki	Do.	Drongmo La and Chumurti valley.
7	Labrang or Kanum	Do.	Spiti river and Budhpu La.
8	Ditto	Do.	Shagrang La and Chumurti route.
9	Wangtu (Hindustan-Tibet road).	To-ling	Sholarang or Gurang passes.
10	Ditto ..	Bekar	Morang and the Nisang valley.
11	Poo (Hindustan-Tibet road).	Do.	Kibarang pass.
12	Jangla (Garhwal) ..	Gartok	Nelung pass.
13	Nilung (Garhwal) ..	Shipki	Shangyok La pass.
14	Landour	To-ling	Mana La or Chirbittia pass.
15	Goshinath (Kumaon)	Misar	Niti pass.

Route No.	From	To	Via
16	Kiung-Lung (Niti pass).	Gartok	Niti pass and Choka La.
17	Milam (Kumaon) ..	Do.	Untadhaura pass.
18	Askot (Kumaon) ..	Barkha	Lipu Lekh Pass.
19	Lang Nga Drungang	Taklakot or Purang	Garla Mandhata.
20	Kagbeni (Nepal) ..	Tadum (Tradom).	
21	Loh Mantang (Nepal)	Rela gampa.	
22	Raswagarhi (Nepal)	Tadum.	
23	Lhatse Jong ..	Kirong	Dingri and Jonka Jong.
24	Shigatse	Katmandu (Nepal)	Shakria Jong Dingri, Basingka La.
25	Lamjung (Nepal) ..	Kharta.	
26	Walungsamgola (Nepal).	Shigatse ..	Nila La and Lang-ulung La.
27	Jongri (Sikkim) ..	Tashirak ..	Kanglachen pass through Nepal.
28	Chilung (Nepal) ..	Shigatse ..	Chutang La and Rhe Jong.
29	Giaogong (Sikkim)	Shigatse ..	Rhe Jong.
30	Choten Nima La ..	Giaogong ..	Valley of Yaru Chu and Kongra La.
31	Khamba Jong ..	Kala Tso ..	Naptha La.
32	Ditto ..	Gyantse ..	Chagsher Jong.
33	Gangtok (Sikkim) ..	Do. ..	Donkhya La.
34	Phari	Ghora La (Sikkim) ..	Khombu.
35	Chumbi	Lachung (Sikkim)	Thanka La.

Route No.	From	To	Via
36	Teesta Bridge (Darjeeling).	Gyantse ..	Gangtok, Nathu La, Nelung La, Gobshi.
37	Phari	Nang-kar-tsi ..	Robsang.
38	Phari	Paro (Bhutan) ..	Northern route.
39	Chumbi	Paro (Bhutan) ..	Southern route.
40	Phari	Ralung (Gyantse-Lhasa road).	Rhum.
41	Biaka Jong (Bhutan)	Lhakhang ..	Monlakachung La.
42	Dewangiri (Assam)	Kangmar (Darjeeling-Gyantse road).	Tashi-gong and Lhakhang.
43	Lhakhang Jong ..	Leling Jong (Bhutan)	Naling. .
44	Dewangiri (Assam) ..	Tawang	Tashi-gong.
45	Nang-kar-tse (Darjeeling-Lhasa road).	Lha-khang ..	Yeh La and Manda La.
46	Round the Yamdrok Tso.		
47	Lha-khang Jong ..	Chetang	Tam-shul.
48	Tamshul	Yamdok Kamoling.	
49	Lha-Khang Jong ..	Chona Jong.	
50	Odalguri (Assam) ..	Lhasa	Tawang and Chetang.
51	Chetang (Tsangpo river).	Tang-shu ..	An alternative route.
52	Ditto	Miri Padam (near Assam border).	Brahmaputra river.
53	Yardong	Chamnak ..	Doshung La.
54	Giamdo (Junglam) ..	Do, ..	Kongbu Giamda chu.

Route No.	From	To	Via
55	Chomorawa (Jung-lam).	Chetang.	
56	Ma-nek're (Upper Burma).	Lho Jong ..	Rima.
57	Rima	Atun-tse (Yunnan).	
58	Gartok (Kiang-ka)..	Rima.	
59	Chiamdo (Junglam)	Menkong.	
60	Gartok (Kiang-ka)..	Atun-tse.	
61	Batang	Yer-ka-lo (Yunnan).	
62	Lhasa	Ta-chien-lu ..	Chomora lake and Jyekundo.
63	Lhasa	Sining Fu ..	North-eastern route and Koko Nor.
64	Tsagan-Namaga (Route 1, stage 89).	Jyekundo (Changlam)	The Di Chu.
65	Chetang	Kham-pa-par-tse ..	The Tsangpo river.
66	Chitishio (Kadesho) Jong.	Lhasa	Tungo La.
67	Lhasa	Galdan ..	Sara.
68	Do.	Tse-shing ..	Telung valley.
69	Gobshi	Chusul (Chaksam ferry, north bank).	Wogiya La, Nyung-kung, and Beo-dé ferry.
70	Shigatse	Yasi	Tsangpo river road.
71	Ditto	Jadar gumpa (Nam-cho lake).	Kalambu La pass.
72	Lhatse Jong ..	Tradom (Tadum) ..	Brahmaputra, Saka Jong and Rela Jong.

Route No.	From	To	Via
73	Misar (Men-ze) ..	Tibu	Tö-ling.
74	Demchok ..	Töling	Shangtsi and Dun-khar.
75	Gartok	Chocho (Langcho valley).	
76	Gargunsa ..	Ditto.	
77	Gartok	Thok Dalung (gold fields)	
78	Jiachan	Lajunchumik at junction of Indus and Gartang chu).	Giachuruf and Indus valley.
79	Tashigong ..	Rudok.	
80	Roksum	Thok Dalung (gold fields).	
81	Leh	Lhasa	Noh and Senja Jong.
82	Do.	Polu	North-west Tibet.
83	Lanak La ..	Shemen Tso ..	Arport Tso.
84	Shemen Tso ..	Antelope plain ..	Memar Chhavka and Gore Tso.
85	Arport Tso ..	Ditto	The Northern route and Yeshil Kul.
86	Yeshil Kul ..	Ditto	A southern route.
87	Ditto	Ditto	Southern spurs of the Kuenlun.
88	Antelope plain ..	Lake Markham.	
89	Lake Markham ..	Huping Tso.	
90	Leh	Noh	Pobrang and Niagzu.

Route No.	From	To	Via
91	Noh	Chamchu.	
92	Chamchu ..	Aru Tso.	
93	Aru Tso ..	Huping Tso.	
94	Huping Tso ..	Lake Markham ..	Direct route.
95	Shum	Pibok.	

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ROUTES IN TIBET.

Route No. 1.

SILIGURI TO SAITU *viâ* JELAP LA, CHUMBI, GYANTSE AND
LHASA.

Authority and date.—Explorer A. K., 1875 ; J. C. WHITE, 1907 ;
CAPTAIN BRANCKER, 1909.

Epitome.

This road starts at Siliguri junction, and goes through Sikkim in an easterly direction to the Chumbi valley, then turns north to Gyantse. From the latter place it goes east-north-east to Lhasa. From Lhasa it runs almost due north to Saitu which is in the extreme north of Tibet. There is a cart road up to Gyantse and on to the Karo La, but it has not been finished up to Lhasa. From Lhasa on to Saitu it is only fit for yak transport.

Water is obtainable at all stages, but fuel is scarce and generally only yak-dung can be obtained. There are bungalows as far as Gyantse. There is an alternate route from Kangmar to Gobshi *viâ* the Nelung La which shortens that distance by 9 miles ; and an alternate route from Teesta bridge to Chumbi. For both these routes see Route No. 36.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Siliguri ..	Sevoke ..	12	12	Siliguri is the junction of the Eastern Bengal State Railway and the Darjeeling-Himalayan Railway.

The road is passable throughout for carts and there is a changing place for bullocks at $6\frac{1}{4}$ miles. Leaving Siliguri it follows the Darjeeling cart road for $1\frac{1}{2}$ miles, then runs for $5\frac{1}{2}$ miles along embankment through rice fields : road is from 12 to 15 feet broad, and perfectly level and straight. From $5\frac{1}{2}$ miles to Sevoke the road runs through tree forest. At 7 and 9 miles small clearings, which afford camping grounds for about $\frac{1}{2}$ battalion if scattered, good water from well at the latter place. At $7\frac{1}{2}$ miles road crosses *nala* by bridge, 36 feet long and 10 feet broad. From $11\frac{1}{2}$ miles the road falls towards the Sevoke river and is much cut up. Sevoke is a small clearing and village in the Terai

C-343 I. B.

ROUTE No. 1—*contd.*

of about 2 dozen huts; a few supplies available. Water and firewood plentiful: forage—bamboo leaves. Camping-ground near junction of Sevoke and Teesta rivers. It is situated on the right bank of the Sevoke and in the dry weather there would be accommodation in the dry bed of the river, where a brigade could encamp. The inspection bungalow is situated on a hill $\frac{1}{2}$ mile away from the camping-ground. There is telegraphic communication to Sevoke from Siliguri.

2	Sevoke	..	Riang	..	11 $\frac{1}{2}$	23 $\frac{1}{2}$	On leaving Sevoke the road enters the hills skirting the Teesta river, which is 80 yards across here, unfordable, with a swift current: just above Sevoke there are two country boats which are used as ferries in dry weather. The hillside above the road is very steep and precipitous, and the road for the first three miles is liable to be blocked by landslips. There are many bridges and culverts, the 4 most important being at 1 $\frac{1}{2}$, 2, 3, and 3 $\frac{1}{2}$ miles: at 2 $\frac{1}{2}$ miles there is a clearing and a village of 20 huts; no supplies or camping-ground. At 4 $\frac{1}{2}$ miles reach Kalighora, two huts and good inspection bungalow. The Kalighora river is crossed by a good iron bridge, 120 feet long and 8 feet broad in the clear. At 4 $\frac{1}{2}$ miles there is an open space near the bank of the river where a regiment could encamp in the dry weather: water and fuel unlimited, bamboo fodder.
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At 4 $\frac{1}{2}$ miles the road crosses a side stream by a good one-span stone bridge, 84 feet long. At 6 $\frac{1}{2}$ miles bullocks are changed, the road being widened to 40 feet; thence for $\frac{3}{4}$ mile the fall from the road to the river is very steep, the water in some places undermining the road; there are no parapet walls or side rails: for the next two miles the road is further back from the river and there are no difficulties thence to Riāng. Riāng is a village of 2 or 3 dozen huts, a few supplies (Indian corn, rice, etc.) procurable; plenty of firewood, bamboo forage, and water; camping-ground around village cleared in jungle, which could be made capable of accommodating 2 regiments. Inspection bungalow across the Riāng river $\frac{1}{2}$ mile away. Store at the bungalow. Road is bridged throughout; metalled for 7 or 8 feet with total width of about 12 feet.

3	Riāng	..	Teesta bridge	5 $\frac{1}{2}$	23 $\frac{1}{2}$	Cross the Riāng river by a girder bridge, 86 feet span, and 10 feet 6 inches in the clear, and capable of carrying 150 lbs. per square foot. The Riāng is about 12 yards across, an average of 2 feet deep in dry weather but subject to heavy floods. Then proceed up the right bank of the Teesta. From here to Teesta bridge, 5 $\frac{1}{2}$ miles, road is much cut up and no parapet walls. Elevation of Teesta bridge is 710 feet. Teesta bridge can be reached from Darjeeling as well as from Siliguri. From Darjeeling to Teesta bridge is 20 miles <i>via</i> Pashok. The bazar is situated on the right bank of the river. A few yards above the bridge there is a Public Works bungalow and a post office. Small quantities of rice and <i>bhutta</i> are generally obtainable, bamboo fodder is plentiful in the jungles. A small number of carts can be hired, but
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ROUTE No. 1—*contd.*

no coolies are available. The river is crossed by a strongly built suspension bridge which is capable of taking wheeled traffic.

4	Teesta bridge ..	Kalimpong, 4,000'	10	38½	From the bridge to Kalimpong is a climb of 3,300 feet either by a metalled cart road
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in 10 miles or by a bridle-path in about 7. At $\frac{1}{2}$ mile above Teesta bridge the road to Gantok branches off (*vide* Route '36). The last two miles the road is almost level and 15 feet wide winding round a well cultivated valley. Average gradient of the bridle path 1 in 10. The bridle-path and cart road unite 2 miles from Kalimpong. The bridle path although steep can be used for laden animals.

Kalimpong is a large bazar situated on a flat saddle at an elevation of 4,000 feet. There are a large number of Marwari merchants who generally deal in cotton goods, etc. A large quantity of wool, musk, yak tails, etc., is brought here by the Tibetans for sale. Fuel, fodder and supplies can be had. It has post and telegraph offices and a police outpost. The dāk bungalow, which has four large rooms, is situated in a clearing in the forest to the west of and 200 feet above Kalimpong bazar.

3	Kalimpong ..	Pedong, 4,760' ..	12	50½	The road throughout is a broad bridle path, along the first 5 or 6 miles of which carts travel,
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width 12 feet. For 9 miles from Kalimpong, the road ascends steadily, gradients not greater than 1 in 8; at the 9th mile a small village called Algarah is reached, here the road from Jalpaiguri *via* Rissum, Labah, and Daling joins in. The descent from the 9th mile is apparently too steep for carts, though carts carrying 5 to 6 maunds occasionally ply between Kalimpong and Pedong.

The Pedong bungalow is situated on an open grassy hillside at an elevation of 4,760 feet and contains four rooms. A small bazar is $\frac{1}{2}$ a mile beyond and below the bungalow, where a small quantity of fuel, fodder, and supplies can be obtained. It has a post office, a police outpost and a trade registration office.

6	Pedong ..	Ari, 4,500' ..	8	58½	A steep zig-zag descent for 4 miles to the Rishi Chu, elevation 2,030 feet, road, a wide
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bridle-path, in fair order, average gradient 1 in 6. This stream is crossed by a strong timber lattice bridge of two spans. The Darjeeling-Sikkim frontier is crossed here.

A steep ascent for $1\frac{1}{2}$ miles and Rhenok bazar is reached, elevation 3,030 feet. It has a post and telegraph office and two-roomed dāk bungalow. Fuel, fodder and supplies are obtainable. Good water-supply. Road from Gantok joins in here. There is a small camping-ground about $\frac{3}{4}$ -mile before reaching the bungalow, which would hold a battalion with transport comfortably. Other units could be fitted in on steep sloping cultivation. The principal man of the place is a Nepali named Tulsi Dass Prodhan, who

ROUTE No. 1—*contd.*

will make arrangements for coolies, supplies, etc. If transport is to be arranged for by the Political Officer in Sikkim it will be arranged for from here or Ari as far as Chumbi. Again ascend for $2\frac{1}{2}$ miles and Ari bungalow is reached. The road is fair, paved in places, average grade of ascent 1 in 8. The bungalow is situated on a fairly level spur at an elevation of 4,800 feet and 200 feet below the spur where the road crosses the Rhenok ridge. It is a small rest-house with three rooms. No village or supplies. No post or telegraph offices. Fuel can be obtained but fodder must be arranged for from Rhenok bazar. There is a Sikkim police outpost here.

7	Ari	..	Sedongchen, 6,500	12	70 $\frac{1}{2}$	Ascend 200 feet and cross ridge and descend 4 miles to the Rongli Chu by a good bridle-path;
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the paving stones are somewhat rough and uneven at present, but this could be much improved by a light covering of soil, average gradient 1 in 8, road 8 feet wide. The Rongli stream is crossed by an iron truss bridge, on the left of which stands Rongli village at an elevation of 2,590 feet. A few supplies and fodder are obtainable here. The Rongli valley is hot and steamy and unhealthy from March to October.

The road turns to the right and follows the right bank of the Rongli Chu occasionally rising to circumvent precipitous banks. At 9 miles pass Lingtam. Here there is a dirty camping ground with space for two battalions. Water unlimited. At 11 miles pass Phandenchen situated on gently sloping ground in a clearing in the forest and at 12 miles Sendongchin is reached, a scattered collection of some 30 bamboo mat huts. From Lingtam to Sendongchin there is a continuous and very steep slope. At Sedongchen there are three small flats suitable for camping, the largest of which is 100 yards square; they are liable to get water-logged in wet weather. There is also a little terraced cultivation where men could bivouac. The inhabitants call Sedongchin, Phadenchen, and *vice versa*. The rest-house which stands above the village at an elevation of 6,500 feet is a rough wooden building containing three small rooms. Fodder obtainable. Water is carried to the bungalow in iron pipes, good and abundant. No post or telegraph office.

8	Sedongchen	..	Gnathong	..	10	80 $\frac{1}{2}$	A steady ascent by a paved road in places at a gradient of 1 in 4 through forest which gradually becomes thinner and gives place to fir and rhododendrons as the summit of the Lingtu is approached. At 2 miles pass Jeyluk, elevation 9,060 feet. Above Jeyluk, the ascent is very steep, the average being 1 in 5. At $4\frac{1}{2}$ miles reach Garnei, 3 stone huts, here the road round Lingtu turns off left, thus avoiding several hundred feet of climb over the summit of the hill, the new road rejoins the old track about a mile on, but is not passable during the winter months owing to the heavy snow, which lies on it, and the old track over the summit (12,610 feet) must be taken. Hence the road to Gnathong is over undulating hillside and there are numerous ascents and descents of from 200 to 300 feet, but the gradients are easy.
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ROUTE No. 1—*contd.*

Gnathong, elevation 12,030 feet. The old stockade has been abolished. Water abundant and good. Fuel and fodder scarce. Good grazing obtainable from May to September. Telegraph office. There is unlimited camping-ground at Gnathong and good grazing in the summer. The old sheds erected during the 1838 expedition are still standing and about 400 men could be housed in them if necessary. Some repairs would be required if a long occupation was contemplated. Transport takes about 6 hours from Sedongchen to Gnathong.

9	Gnathong	...	Yatung, 9,300'	17	97½	Road leaves Gnathong and descends for some 150 feet and then ascend, in a north-
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easterly direction reaching the Toku La, elevation 13,550 feet in two miles, gradient 1 in 6. At 5 miles the Jelap stream is crossed by a log foot bridge. On the right bank of the Jelap stream is Kupup, elevation 12,700 feet, where the road to Changu and Gantok turns off. Around Kupup is unlimited space for camping with an ample water-supply. Here the road up the Jelap turns off right. Path is up the right bank of the Jelap stream, easy ¾ mile, then steep to within 1,500 yards of the summit and again easy, the Jelap pass, elevation 14,780 feet, is reached. Here the Tibetan frontier is crossed. This pass is very seldom closed in winter; the wool trade passes over it throughout that season. In an average winter it is closed for perhaps 3 or 4 days, in a bad winter for 15 days. The path on the Tibet side is rough and stony beyond description and descends rapidly to the valley of the Langrang river and follows the left bank of the river. At about 3¾ miles pass Langrang, elevation 12,930 feet. Path now leaves the main valley and drops down a spur by very steep short zig-zags through thick jungle due north crossing a stream by a rough wooden bridge, thence along bank of stream to its junction with the main river, road roughly bridged with logs. Yatung, elevation 9,300 feet, is reached immediately after crossing the last bridge at the junction of the Nathu and Langrang streams. Yatung consists of a house built for a British officer, but always used by the Commissioner of Chinese Customs as an office, four blocks of shops, and a Tibetan guard house, but no dāk bungalow.

These shops, which were intended for traders, are unoccupied except by the Chinese Customs officials. From the top of the Jelap pass to Yatung is 7 miles and the road is regularly travelled by laden mules but the gradients, are in places as much as 1 in 4 and the road extremely bad, rocky and boggy and very hard on any animals.

10	Yatung	...	Chumbi	...	6	103½	Leaving Yatung the road is level for 100 yards to the Nathu stream which is cross-
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ed by a strong wooden bridge. At 1 mile from Yatung the road enters a forest of *Pinus excelsa*, gradients in this portion do not exceed 1 in 10. Rinchengong is situated on the right bank of the Ammochu and is bisected by the Jelap stream, which is spanned by a good bridge. The Ammo Chu is also bridged a little below Rinchengong. Rinchengong contains some well constructed houses, and a battalion could be billeted there. Around Rin-

ROUTE No. 1—*contd.*

chengong is an unlimited camping-ground on terraced barley fields and ample water-supply. From Rinchengong to Phema $1\frac{1}{2}$ miles the road runs up the right bank of the Mo Chu, and is 8 feet wide and rises with an imperceptible gradient. Here the road from Gantok *via* the Nathu La (route 36) joins in. The Ammo Chu is spanned by a good cantilever bridge 100 feet in length. Just above Phema is Pipithang, a village inhabited solely by the Chinese officials of the Chumbi valley and their suites. Just beyond this Chinese village there is a British trade registration office. From Phema the road follows the right bank of the river as far as Chumbi, where the Raja of Sikkim's house is situated, it then crosses the river by a wooden bridge. New Chumbi is $\frac{1}{2}$ miles further on. The British Trade Agent at Yatung is stationed here, and here are situated the Yatung post and telegraph offices. The dāk bungalow is situated at Yusakha village on the right bank of the Ammo Chu, which is crossed by a substantial wooden bridge. Water good and abundant. Fuel, fodder and a few supplies are available.

11	Chumbi	..	Goutsa	..	114	115	The road proceeds up the left bank of the river. A mile from Chumbi is a wooden bridge leading to
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Tugyui village. The valley now closes in and half a mile on, on the left bank of the river, is Guptsai Byak, a large rock and halting place opposite which on the right bank and at a considerably greater altitude is Gup Jong. Here at 3 miles from Chumbi there is a Chinese defence wall similar to that at Yatung. The portions of this wall near the road have been destroyed. In rear of the wall is the Chinese village of Chuten Karpo of about 100 houses including the residence of the Tungling or Chinese colonel.

Above Gup Jong half a mile up the hill is the village of Gangku of about 30 houses and Kyilumtse monastery. From Chuten Karpo the valley is still narrow for half a mile as far as Galing village, where it opens out a little. The village contains 60 houses and is situated on flat and cultivated ground about 150 yards from the bank of the river which is spanned by a wooden bridge just below the village. One mile from Galing and 5 miles from Chumbi, Lingmatang is reached. This is a grassy plain 2 miles long by half a mile wide down which flows the river. The road follows the left bank of the river for a quarter of a mile from the commencement of the road. Here is a wooden bridge and except from the middle of June to the middle of October, when the plain is closed to traffic to allow the grass to grow, the road crosses the bridge and follows the right bank of the river over the grassy plain to the end, where it ascends by a zig-zag. From the middle of June to the middle of October the road continues along the left bank and crosses to the right by a wooden bridge at the end of the plain and thence up the zig-zag. When the plain is closed to traffic some beams are taken from the bridge to make it impassable. This summer road is always open, but is more stony and rougher than that over the plain. One mile from here the road again crosses to the left bank. Another 2 miles to Samsatang a small clearing containing no houses. About one mile from Goutsa there is an ascent by a zig-zag. At Goutsa there is a dāk bungalow and a few huts, no

ROUTE No. 1—*contd.*

supplies available and no grass. A little grazing would be obtainable in summer. There is a camping-ground at Goutsa large enough for a battalion with transport. Wood and water-supply unlimited.

12	Goutsa	..	Phari	..	16½	131½	The road is along the right bank of the river. At one mile from Goutsa is Trakarpo, Chinese post station.
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At 5 miles from Goutsa after a steep zig-zag ascent Dotha is reached. This is a small plain about one mile long. There is a dāk-runner's hut here. The limit of fuel is at the foot of the zig-zag below Dotha. From the end of the Dotha plain the road ascends to a height of 200 feet above the river, and continues level for 2 miles to Kamparab, 7 miles from Goutsa, where it crosses to the left bank. After following the river for a few hundred yards the road leaves it and enters a broad valley leading up to Phari. The road crosses the valley to the right side and 3 miles from Goutsa is a dāk-runner's hut called Akang. From here the road goes straight on to Phari.

The town stands at the foot of the jong and contains about 100 turf-walled houses with some shops. Here Tibetan supplies and clothing may be obtained in small quantities. Atta, sugar, onions and potatoes may be bought at high prices. Phari is a great centre of the wool trade. The dāk bungalow is situated a quarter of a mile to the south-east of the town. Fuel and fodder scarce and yak-dung has to be used instead of wood fuel. There is good grazing within 2 miles of Phari in summer, and at this season large numbers of yaks and mules could be commandeered in the neighbouring valleys. There is unlimited camping space around Phari.

13	Phari	..	Tu-na	..	21	152½	The road leaves Phari and runs north over a wide open plain, crossing several streams.
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At 5 miles the stone built village of Chukya is passed, and the road enters a valley about half a mile wide, and bounded by open rolling hills. At 8 miles this road opens out and at 9 miles the Tang La is crossed. The Tang La itself is a broad swell and the summit is hardly distinguishable from the plain around Tu-na which slopes gently down to the village.

Chumalhari peak (23,900 feet) lies about 6 miles to east of Tang La. A path leads to Kamba Jong leaving the Tu-na plain some 4 miles to the south-west of Tu-na village. The village of Tu-na is situated under a spur projecting from the east face of the ridge of hills. Fuel and fodder obtainable in small quantities. Water is obtained from a large spring issuing from the bottom of a spur ½ mile from the rest-house.

14	Tu-na	..	Do-chen	..	13	165½	Leaving Tu-na rest-house the road runs under the western ridge of hills and at
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½ mile reaches a spring which issues from the hillside, the road passing just above it. The road then runs almost due north for 4 miles across a level plain and passes some springs where the encounter with the Tibetans took place in 1904.

ROUTE No. 1—*contd.*

From here the road runs over an elevated plateau, with Guru on the left. This village consists of three groups of houses about $\frac{1}{2}$ mile apart, situated under the shelter of the hills. The road now comes in view of the Bhomtso Lake, a sheet of water some 10 miles wide by 16 long. The road runs at the foot of the hills close to the western edge of the lake. Direction of the road due north. At $4\frac{1}{2}$ miles reach the village of Do-chen, a small collection of houses. Throughout its course, the road is protected on its east, first by an impassable marsh and then by the Bhomtso. At Do-chen there is unlimited camping ground. There is a limited supply of water from a spring and pond near the rest-house. The Bhomtso is fit for drinking, but opposite Do-chen special arrangements would have to be made for drawing water, as the foreshore is very muddy.

Alternative Route.

Leaving Tu-na by the main road, at 1 mile, a track branches off and runs north-west across an open plain. At 4 miles it reaches the foot of the hills on the opposite side of the valley and at about 6 miles turns north and crosses an easy open pass into the upper part of Guru valley. It then runs north-west again by a rough track across the valley and at 8 miles meets a stream flowing from the north. It follows this stream up a narrow valley and at 12 miles debouches on a wide open valley west of Do-chen, at the western end of which is a road to Kamba Jong. The track now runs generally east over an undulating plain, commanded from the south by a cliff-crowned ridge. It passes between two rounded isolated hills in the middle of the plain and rising gently, at about 16 miles crosses an open easy pass and Bhomtso comes into view. It then runs east down a stony valley past the upper village of Do-chen. At 18 miles it reaches a flat plain, and at about 20 miles it reaches Do-chen rest-house. The distances given are only approximate; the 4 miles to 1 inch map gives quite a wrong impression of the country round Do-chen and Guru. This route is difficult to find without a guide, but is passable throughout for mule transport.

15	Do-chen	..	Kala	..	12	177½	From Do-chen the road runs alongside the lake for $1\frac{1}{2}$ miles. It then turns
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north-east and passes close to the lake and the ridge of hills on the west of $6\frac{1}{2}$ miles, to where the stream from the Bhomtso flows nearly due north towards the Kalatso. The path crosses the stream and runs down the right bank of the stream along a narrow valley, the sides of which rise to about 1,000 feet above the path. The hills on the west slope up gently, whereas those on the east are steep; they are, however, accessible anywhere. The stream is crossed by a stone causeway passable for laden animals and carts. The village of Cha Lu itself lies about one mile down the valley on the right bank of the stream and is a collection of half a dozen stone houses. There is a stone bridge across the stream at 4 miles and at 5 miles the stream issues from the valley on Kalatso plain close to a collection of three villages generally known by the name of Kala. At Kala there is unlimited camping-ground, and unlimited water. The water runs down from

ROUTE No. 1—*contd.*

the Bhomtso and is slightly brackish but wholesome. The Kalatso is almost dried up and is reported to be unfit for drinking purposes.

Alternative Route.

A track runs north-east from Do-chen over a wide and gently rising plain. At about $2\frac{1}{2}$ miles it passes between two prominent under-features and then turns slightly right-handed up a small but somewhat steep and stony watercourse.

At the top of this watercourse the track debouches on the open side of the hill bounding the valley to the north. It runs up by easy gradients and at 6 miles it crosses an open and easy pass called locally the Kemita. The track now turns north and runs gently down a flat open space, commanded by a hill some 2 miles to the north-east. At 9 miles the track reaches the Kair plain, which is about 7 miles wide hereabouts and very flat. The track now runs east and passes a small shepherd's *busti* called Trongma, where there are a few pools of brackish water. It runs on skirting the hills on the south side of the plain, and in places crossing stretches of the dry bed of the Kalatso until at 16 miles Kala Nup is reached. There is water about the third mile, and after that none until Kala is reached.

16	Kala	..	Sa-ma-da	..	14	191 $\frac{1}{2}$	The road now turns north-north-east along the east side of the Kalatso plain, which
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is about 5 miles broad. At 6 miles cross a low ridge which juts out from the hills to the east and descend to another plain. At 11 miles the village of Mangtsa is passed and the road leaves the plain and drops down to a rapidly flowing stream. From Kala to this point no water can be obtained on the road. From Mangtsa, the road runs along the banks of this stream until it reaches Gyantse; the name of the stream varies in different localities. At 12 miles the road enters a valley about $1\frac{1}{2}$ miles wide, bounded on either side by steep hills, rising to 2,000 and 3,000 feet above it. The road runs down the left bank of the stream. At 14 miles the village of Sa-ma-da is passed on the left hand. At Sa-ma-da there is unlimited water and camping-ground.

Alternative Route.

From Kala a track runs north-north-east across the flat plain. At $4\frac{1}{2}$ miles it crosses a low ridge, and arrives on the edge of a marshy, grassy plain, on which, in summer, large numbers of yaks and sheep graze. Water is plentiful here. The track skirts round the edge of this and then runs north over a wide plain. At about 8 miles, the track turns north-east and runs up a valley about 2 miles broad. From this point a track runs on north, up a spur and over a high but easy pass, into the Kangru Po valley. At about 9 miles, the track gets rougher and ascends several steep and stony inclines, until at 10 miles a wide and easy pass is crossed (height about 16,500 feet). The track now runs down an open stony valley by easy gradients. At 13 miles, a deep valley runs up to the north-west. Along this runs a track, which leads into the Kangru Po valley by a high but easy pass (height about 17,000 feet). The track now turns almost due east; at about 14 miles water is reached, and the valley narrows to about a mile, the slopes on the south

ROUTE No. 1—*contd.*

being easy and those on the north steep. At about 16 miles Sa-ma-da is reached.

Note.—From the tops of the hills the Kangru Po valley appears open and easy. Water is plentiful.

17	Sa-ma-da	..	Kangmar	..	14	205½	From Sa-ma-da the road runs on down the left bank of the stream, called locally
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the Nying-hu Tsangpo, but known lower down as the La Lungpo Chu. The valley varies from about 2 miles to 1 mile in width, and is cultivated in the vicinity of the stream in its centre. It is bounded on either side by hills rising to 3,000 feet above the road; they are steep but not generally rugged or precipitous. Dismounted men and loaded yaks can cross the hills on either side by most of the *nalas* running down to the main valley. The Nying-hu Tsangpo is about 20 yards across and is fordable in many places. At 3 miles the village of Salu is passed and at 3½ miles Gyani gompa. About 2 miles beyond Gyani gompa, a narrow pier bridge crosses the stream and a track leads to Trangdo, on the right bank. The road runs on down the left bank past the villages of Trangdo, Kazung Gyunka, and Galung on the right bank, and at 8 miles passes Bayul on the left bank. In the *nalas* south-east of Kazung Gyunka a rough track runs over the hills to the Phari-Hram Me-Lhasa road, but is passable to yak transport only. (See Route No. 37.) Soon after passing Bayul the road crosses over to the right bank by a strong stone pier bridge. At 12 miles Shomang gompa is passed, and at 14 miles Kangmar rest-house, situated about 1,000 yards west of Kangmar village, is reached. There is unlimited camping ground and water at Kangmar.

From Kangmar a road runs east over the Neru La. See Route No.

18	Kangmar	..	Sa-u-gang	..	15	220½	From Kangmar the road runs on down the valley which now varies from half
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mile to 1 mile in breadth, the hills rising to 2,000 and 3,000 feet above the road on either side. At Kangmar bungalow there is an easy ford across the La Lungpo Chu. On the opposite bank a track runs north 1½ miles and turns up the Wangla *nala* and after a difficult and steep ascent, crosses into the Kangrupo valley; this route is only practicable for yak transport. Half mile beyond Kangmar are two mineral springs of hot water, temperature 84° F. Two miles further, crossing a stream, pass Lamda on left bank. Road runs north on right bank of stream. There is a bridge opposite Lamda. At 5 miles pass ruined village of Traknak on right bank. At 7 miles pass village of Tanang on left bank and Zamdang gorge is reached. The road runs only on the right bank and is a narrow passage through masses of piled up rocks which have fallen from the cliff above. The gorge continues for ¾ mile when it gradually opens out on to the north where the Kangrochu joins it from the west. Half a mile further is the village of Dote on the left bank. At 14 miles, the road crosses from the right to the left bank by a strong stone pier bridge. From this bridge a track runs up stream along the left bank to the Kangrupo valley and to the

ROUTE No. 1—*contd.*

Tebu La. The Kangrupo valley road is reported as good ; but the Tebu La, which gives access to the southern end of the Tsechen valley is described as difficult for led horses and practicable for loaded yaks. At 15 miles reach Sa-u-gang. At Sa-u-gang there is unlimited water-supply, and unlimited camping space on terraced barley fields.

19	Sa-u-gang	..	Gyantse	..	14	2.4½	From Sa-u-gang a track runs east over the Tsutula (Kutula) to the Neru valley. It is reported
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as difficult, and impracticable for ponies and mules; loaded yaks can, however, cross this pass in summer though it is probably impassable in winter. Road continues due north on left bank of river passing villages on both banks. At 5 miles from Sa-u-gang a rough track turns off north-west and leads over the Chuyu La to Giding village in the Tsechen valley (11 miles). The Chuyu La is an easy open pass, but the path crosses many ravines and *nalas* during the last two miles before reaching Giding village, and would be very difficult for laden mules in bad weather. A *nala* just west of the Chuyu La, however, gives an easy line of advance on Gyantse. At 9 miles from Sa-u-gang the valley begins to open out and numerous small villages are passed surrounded by cultivation. The large village and monastery of Nam-gye are passed and shortly after the road turns round the end of a spur and Gyantse Jong comes into view, perched on a high rock about 5 miles off. The stream is here joined by the Mrachu from the east. The road runs down the left bank of the stream, which is here called the Nyangchu, and crosses by a fine stone bridge of some six spans to Changlo, the present British post, some three quarters of a mile from Gyantse.

Gyantse town is situated round the foot of the rock on which the *jong* is built. The principal portion of the town of about 5,000 inhabitants lies to the north by the Choide monastery, which contains some 600 monks. The town consists of a main street running directly to the main entrance of the monastery. There are some Nepalese and Kashmiri traders and a bazar is held weekly. The Chinese population number some 40 only. On the east side of Taijong is another part of the town which in fact nearly surrounds the *jong*, here there is the Chinese *yemen*.

The British Agent is stationed here. There is a post and telegraph office and a *dak* bungalow.

Note.—Rest-houses containing four rooms each, with stabling and servants' quarters attached, have been constructed at each stage between Phari and Gyantse. They contain furniture, cutlery, cooking utensils, etc. At each stage also, grain, *bhoosa* or barley, straw and fuel can be obtained in small quantities. The road between Phari and Gyantse is fit for cart transport, and the parcels mail is carried between these places in a two-wheeled cart.

20	Gyantse	..	Khotan	..	11	245½	From Gyantse the road runs nearly due south for 5 miles along right bank of Nyaung Chu and then turns south-east along right bank of Nyeru Chu. At 6½ miles pass
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ROUTE No. 1—*contd.*

village of Thagni. Road good, valley wide and open. A small quantity of grain, forage, and firewood is obtainable from villages in the vicinity.

21	Khotang	..	Gob-shi	..	7	252½	Road as before; at two miles valley narrows considerably, at 4½ miles cross Nyeru
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Chu by a cantilever bridge opposite village of Gya-trak. Valley from here runs due east; at 5 miles road passes through a gorge about half mile long which might be used as a defensive position, but can be turned on either side; the hills on right bank of river are about 500 feet high, those on left considerably higher. Beyond the gorge, valley opens out again and village of Malung is passed at 5½ miles. Gob-shi (elevation 13,800 feet) is a small village with a little *jong* on a col about quarter mile east of it, which commands the crossing of the river a little beyond Gob-shi. A Chinese official resides here. There is a plentiful water-supply; grain, forage and firewood obtainable in small quantities from the village. Unlimited camping ground on terraced barley fields to the north.

22	Gob-shi	..	Shu-to	..	7	259	The Nyeru Chu at this place is joined by the Ralung Chu and the road, after crossing the
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stream by a bridge, follows the right bank of the latter river, passing for the first half mile through a narrow gorge with precipitous sides; the valley then widens out. At 1½ miles pass Khawang monastery. This village is painted with vertical streaks of red, white and blue. Small quantities of grain procurable at this place, and during summer months a little grazing from crops in fields. Road thence undulates along hill side, sometimes descending to riverbed; country is mostly cultivated and valley about a quarter mile wide. At 2 miles pass small village of Gortse, at 4½ miles road rises about 100 feet up hillside and runs along edge of steep cliff for about quarter mile. At 5½ miles pass hamlets to north of road with mill and some trees below to south, called Sala-Gang. Then across plain, passing house with tower and mud wall round it 200 yards to south of road at 6 miles. At 7 miles is village of Shu-to to south of road. This is a fair-sized village with open stony plain beyond capable of accommodating a brigade; water from stream and possibly small quantity of grain obtainable in village. Elevation by aneroid 14,700 feet. Road may be described as rough but good mule track, narrow in places, but presenting no particular difficulties; it is on average about 8 feet wide, and the hills being mostly composed of shale, road soon dries after rain.

23	Shu-to	..	Ra-lung	..	8½	266	Road as before, at ¾th mile cross stream from north by stone bridge; stream also fordable,
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depth about 1½ feet. Some ruins on opposite bank. At 1½ miles large village of Lung-mar standing about 100 feet above river on right bank, some grain procurable and quantity of cultivation all round. Road then descends to river bed which it follows, occasionally rising a little above it and usually narrow in such places. Valley about 200 yards wide, some cultivation, hillsides

ROUTE No. 1—*contd.*

grassy and bare. At $4\frac{1}{2}$ miles valley opens out to about quarter mile and small village of Tak-stang is passed on left bank of stream. Between 5th and 6th miles pass some ruins on left bank and at $6\frac{1}{2}$ miles small hamlet of Ting-shi on right bank. At $8\frac{1}{2}$ miles is village at junction of two streams known as Chun-du and about quarter mile to north is large open plain usually used as camping-ground by the Tashi Lungpo Grand Lama. Capable of accommodating a division. Village stands on left bank of southern stream and there is a Chinese post at south end of plain between the two streams, surrounded by wall 8 feet high and capable of accommodating 100 men and 200 animals. The place takes its name from monastery and village of Ra-lung situated behind a hill about 3 miles distant in valley of southern stream. Alternative road from Phari to Lh-sa comes in here (Route 40). Both streams are bridged. Some grain obtainable from monastery and firewood from scrub on right bank of northern stream, also from worm-wood growing on hillsides which are grassy and bare. Elevation by aneroid 15,200 feet and rising during march 500 feet. Water from rivers. Road during this march is good mule track and presents no difficulties; it could easily be improved into an *ekka* track by a little work and widening in places. Time of march for head of column 3 hours actual marching, or including halts $3\frac{1}{2}$ to 4 hours.

24	Ra-lung	..	Karo La	..	10	276	Road runs for about
							$2\frac{1}{2}$ miles due north
							along left bank of
							small stream after

which valley opens out to a width of about 5 miles and the road bears east-north-east up to 7 miles, rising at easy gradients on to low spur running down from the high snow-clad peaks. The foot of No-jin-kang-sang (23,800 feet) is here reached and the road makes a sharp bend to the east, leaving the peak on the left, and runs through a narrow gorge for half mile: the valley widens again till 8 miles, when it once more contracts up to the 9th mile. Road is now on the right bank. At $9\frac{1}{2}$ miles a little pass is crossed and on the farther side there is a valley about $\frac{1}{2}$ mile long and 200 yards wide with gentle slopes on either side which would make a good camping ground, the soil being gravelly, water, and fuel from large scrub, being obtainable.

25	Karo La	..	Dza-ra	..	6	282	Road ascends gradual-
							ly to summit of Karo
							La (16,600 feet), which
							is reached at $1\frac{1}{2}$ miles;

the top is marked by a rough stone wall about a foot high, as is usual on Tibetan passes. Descent from pass is easy, the road running along left bank of stream. At $2\frac{1}{2}$ miles a large valley with a fair-sized stream joins from the south; from this point the road is about 50 feet above the river with steep shale slopes on the hillside and high crag above them. At 3 miles the road runs down into the riverbed and the valley narrows to about 50 yards. The valley now makes a sharp bend southwards round a spur and then turns to the north again through a narrow gorge. Down this spur and across the bed of the *nala* the Tibetans have built a strong loop-holed wall some 600 yards long and 5 feet high. Dza-ra, a Chinese stage post, is situated at the foot of the pass. No forage or fuel, save dried dung, is obtainable here.

ROUTE No. 1—*contd.*

26	Dza-ra ..	Nang-kar-tse	14	296	Road is level and continues along left bank of stream, called Khar-nang-phachu. The valley is at first only half mile wide, but it gradually opens out till it expands into the Nang-kar-tse plain. At 2½ miles stream from north is crossed; at 6 miles pass village of Ringla, here river turns northward and the Nang-kar-tse plain commences. Nigro is situated on the plain. Road good across plain. Nang-kar-tse is situated on the shore of the Yamdrok Tso. There is a <i>jong</i> on a small hill and the houses are perched on the hillside, overlooking the <i>jong</i> . The lake is from 2 to 3 miles broad and about 45 miles in circumference. Grain, forage and firewood obtainable from the village. See Routs Nos. 37, 45 and 46.
27	Nang-kar-tse ..	Yasi ..	11	307	Road at first along foot of hills about a mile from lake. Later it touches the shore and follows it for the rest of the way. Pass villages of Hailo, Dablung and Dephu to 4 miles where lake bends in considerably and forms a bay, Yasi, is at the head of this bay. The direct road from Shigatse joins in here. See Route No. 70. Grain and forage obtainable at village.
28	Yasi ..	Pe-de Jong ..	5½	312½	Road level to village, which is on bank of lake and has a resting place and <i>jong</i> . At Sharmi-teng the road passes between two crags. Grain and forage obtainable at village.
29	Pede Jong ..	Demalung ..	11	323½	The road is along the shore of the lake the whole way. Grain, forage, and fuel obtainable from the village.
30	Demalung ..	Kam-pa-par-ste	8	331½	The ascent of the pass is commenced at once which is 16,000 feet. The greater part of the climb is done in the first mile, and thence it is another mile to the top by a slightly ascending road. From the top another road leads down to Demalung village, but it is steeper and rougher than the main road. The descent on the north side is about 4,000 feet in 5 miles, and in parts the road is very rough. The village is passed at 7 miles and a good camping-ground exists near the river a mile further on. Grain and forage obtainable at the village.
31	Kam-pa-par-tse	Chaksam ferry	8	339½	Road across plain called Khamba-chyang Thang to village of Toi-tsi, thence two miles to village of Palchen Churori, close by chain bridge over Tsang-po. Bridge is useless and river is crossed by ferry, which is about half mile

ROUTE No. 1—*contd.*

higher up the river. Grain, forage and fuel obtainable here in small quantities.

32	Chaksam	..	Chushul	..	3	342½	At the point where the ferry is, the hills come down to the river edge on the right bank,
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making the approach to it narrow and the space at the landing place limited. There are generally two large boats here and two skin boats for ferry purposes. The larger ferry boats hold about 80 men, 12 to 24 transport animals, or 150 maunds of baggage. After crossing the Tsangpo, the road runs along the left bank for a short distance and then follows right bank of Kyi-chu, the river on which Lhasa stands. Pass village of Jiru-khar thence to Chushul, 60 houses surrounded by cultivation.

There is another ferry about 6 miles further up the river at Partse which is used when the river is in flood.

33	Chushul	..	Jang-to	..	11½	354	Road level, at half mile cross a stream, pass hamlets of Tsa-kang and Tsa-bo-nang; 4
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miles, road reaches and proceeds along right bank of Kyi-chu, across sandy plain to Jang-me, thence by narrow track to Zame, 10½ miles and Jang-to 11½ miles. Grain, forage and fuel obtainable.

34	Jang-to	..	Netang	..	6½	360½	Pass leads over a confused mass of rocks and boulders along the bank of erhang-
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ing the river for 1½ miles, thence 5 miles over sand and rocks to Netang. The village of Nam is passed on the road. Supplies can be obtained both at Nam and Netang.

35	Netang	..	To-lung	..	7½	368	Road level along right bank of Kyi-chu; pass villages of Norbugang, 6½ miles Chu-
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mig-gant, containing a number of fine houses surrounded by gardens and groves, belonging to the civil officials of Lhasa. Cross the To-lung Chu by a large stone bridge, 120 paces long and 8 broad, where stands monastery of Tsor-pa. To-lung on the left bank of stream of that name, large village surrounded by numerous hamlets and cultivation.

36	To-lung	..	Lhasa	..	6	374	Pass several villages and Dephung monastery and park, thence 3½ miles to Lhasa,
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passing temple of Nachung-chos-Kyung, where road nears river, and across *maidan* to city. There is a camping-ground for about a brigade north of the town near the Sera monastery: this was the camp which was entrenched by the 1904 Mission. See Route No. 50, stage 36.

Note.—Supplies are plentiful in the Gyangtse and Lhasa valleys except at Karola and Dzara. Water can be obtained at each halting place. Orders

ROUTE No. 1—*contd.*

were given in July 1907 for the construction of a cart road to the Karola from Gyantse.

37	Lhasa	..	Ling-po Jong	8 $\frac{1}{4}$	382 $\frac{1}{2}$	A mile and a half from the Ramoche Jhio temple in Lhasa is a small fort built for Chinese soldiers to the east of which is a Tibetan parade ground called Dab-chi. Two miles further the road crosses a small stream which issues from the Phembu Gong pass and flows south into the Kyichu; $\frac{3}{4}$ mile further on the same stream is recrossed. At about 5 $\frac{3}{4}$ miles and to the left of the road is a temple called Gakanaka Chinkhang and about 1 $\frac{1}{2}$ miles north of the temple a <i>nala</i> from the west joins the stream which flows along the road. Continuing to 8 $\frac{1}{4}$ miles Ling-po Jong is reached. The road has many unimportant hamlets; the first 4 miles are good, the rest stony and rugged but with an easy gradient. Ling-po Jong is a ruined fort. Forage abundant.
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38	Ling-po Jong..	Debungsiga or Naimar.	14	396 $\frac{1}{4}$	The road reaches the Phemba Gong pass, height 16,320 feet, by a difficult ascent of rough road, two miles long.
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The Phemba Gong range runs from the east. The road then descends steeply for about 2 $\frac{1}{2}$ miles to a stream which crosses the road towards the left: and goes on for about 5 $\frac{3}{4}$ miles to Gya-mo-dong, a small village. About a mile below the village the stream recrosses the road to the right and flows on for about 2 miles to the Pen-yu-nechu stream. About 1 $\frac{3}{4}$ miles from Gya-mo-dong are two temples, one Langta *gomba* containing 50 *dabas*, about 500 paces to the east, the other Nalenda *gomba* containing 100 *dabas*, a mile to the west. About 2 $\frac{1}{4}$ miles further the road crosses the Pen-yu-ne hu 1 $\frac{1}{2}$ feet deep and 15 paces broad, flowing from the west. A mile north-east of the crossing over the Pen-yu-nechu, issuing from the Cha La, falls into that stream; 3 miles beyond the stream is Dubungsiga, a village of 20 houses in the Phembapatti.

This locality is well watered by irrigation cuts from the Pen-yu-nechu, and is largely cultivated.

39	Debunsiga	..	Talung	..	18 $\frac{1}{4}$	415	About 2 $\frac{1}{2}$ miles from Debungsiga is a village about $\frac{3}{4}$ mile from which and bearing 86 $\frac{1}{2}^{\circ}$
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is a fort called Lundab Jong, with 50 houses around it. 1 $\frac{3}{4}$ miles further, and $\frac{3}{4}$ mile from the road bearing 82 $\frac{1}{2}^{\circ}$ is a *gomba* containing 50 cells. Streams cross the road and run parallel to it. After an ascent of 2 $\frac{3}{4}$ miles the Cha La pass is reached (height 15,840 feet). $\frac{3}{4}$ mile further, on the other side of the pass, a stream comes from the left, flows towards the north, and crosses the road 1 $\frac{3}{4}$ miles further towards the east: $\frac{3}{4}$ mile further it joins another stream from the west, and the united stream flows into the Talungchu river. About 2 $\frac{1}{2}$ miles further is the encamping ground, a mile to the west of which is a large *gomba* called Talung *gomba* the residence of a famous lama of Tibet and of about 300 *dabas*. Grass and fuel are abundant; the road is stony.

ROUTE No. 1—*contd.*

40	Talung	..	Phondu Jong	6	421	Road crosses the Talung to the left bank, river is 3 feet deep, 35 paces wide and flowing north-east joins the Kyichu river. About 6 miles from the last halting place is Phondu Jong (height 13,340 feet) which is situated at the confluence of the Rongchu and Migi Changpo rivers, and the Talung. Near the fort a little above the junction is an iron bridge 40 yards long. This is a chain suspension bridge. There are two chains, the ends of which are fastened round huge blocks of wood buried beneath great piles of stone. Planks 3 feet long by 1 foot broad are suspended by ropes; they hang 4 yards from the chains and are placed singly, so that the bridge is only a foot wide. The chains are stretched as tight as possible, and the hanging ropes are all the same length, not like an ordinary suspension bridge. Boats are used in the rainy season to cross the river; 6½ miles further is the deserted village of Chamchunaeng on the right bank of the Migi Changpo river. Latitude by observation 30° 16' 30", height 13,230 feet. Grass, fir tree and firewood are obtainable here. The road is rugged and narrow up to Phondu Jong, the remainder wide, smooth and level.
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41	Phondu	..	Lani Tarjum ..	12½	433½	Two miles from Phondu Jong the road goes through the village of Chiemo Lhakhang (50 houses) with a small temple of the same:—Is situated at junction of a stream with the Migi-Changpo river. There is a large monastery called Reting gomba in which 200 <i>dabas</i> reside; cultivation ends here. The road continues to follow stream, into which <i>nalas</i> open at distances of 4½ miles and 6½ miles from Reting gomba. 3 miles further (still following stream) is the Marnio La pass, source of stream (height by boiling point observation) 14,960 feet. This pass has a gentle ascent and descent, and is the northern boundary of the Reting district which extends to Chiemo Lhakhang southwards. About ½ mile from the pass is Lani Tarjum.
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A halting place. About 50 tents occupied by nomads under control of headman, appointed from Lhasa.

42	Lani Tarjum ..	Yar Khorchen	11½	444½	The road from Lani Tarjum to Yar Khorchen goes up an easy ascent 2½ miles to the Lani La pass (height 15,750 feet). A stream issues 2½ miles from the pass and after flowing northwards for about 4½ miles is joined by another stream from the west. A mile further is a <i>chuchan</i> (hot spring) and about 1½ miles further Yar Khorchen. Road good and wide. (Latitude 20° 30' 55", height 14,460 feet.)
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A halting place where there are three *kacha* houses, two for travellers and one for a Korchon (a temple in which is a *korlo*, a revolving cylinder covered with religious symbols). This place is in the Dam valley which lies north-east and south-west and is about 15 miles by 5. It is watered by the Damchu stream, about 2 feet deep and 20 paces broad; a tributary of the Rongchu river.

ROUTE No. 1—*contd.*

The Chigeb or ruler of the Dam valley lives in a *pucca* house three miles west of Yar Khorchen. The valley is famous for its pasture, large flocks, horses, and general prosperity. Its inhabitants (Tibetan nomads) are warlike; and are not subject to Lhasa, though they acknowledge the authority of the *Amban*.

The road from here to Angirtakshia is generally speaking good.

43	Yar Khorchen	Left bank of Lhai Chu.	14½	458½	The road from Yar Khorchen to the Thai Chu river crosses four streams coming from the east at 2, 4, 5½ and 6½ miles respectively from Yar Khorchen, and 9½ miles from the same place reaches the Chiokchela pass. The 4 streams flow south-west and unite to form the Damchu river. The pass has an easy ascent and descent, and forms the north boundary of the Damchu district; 4½ miles beyond the pass is the Lhai Chu river, 2 feet deep, 30 paces wide, which, issuing from the Neu-Chu thangla range, flows south-east into the Migi Changpo river. A road runs up the Lhai Chu river and thence across the Nin-Cheng-thangla pass to the Tengri Nur lake. At 23 miles bearing 116½° is Poto-molam, snowy peak. Road good.
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44	Lhai Chu	Shangshungla	24	482½	Two miles from the Lhai Chu river the road crosses one of the principal sources of the Migi Changpo, 2½ feet deep, 50 paces wide; then over five more streams coming from the east, 8, 9, 12½, 16½ and 17½ miles respectively from the last halting place. These streams join a river from the Shangshungla pass which flowing to the south is joined by the Lhai Chu. The road is good and lies in a valley between two spurs running south which are connected by the Shangshungla pass; an easy low pass 23 miles from the last halting place. About 12½ miles from the pass bearing 232° is the snowy peak Samden Khansa. Road good. Camping-ground about ¾ mile beyond pass.
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45	Shangshungla	Left bank of stream coming from the south-east.	19½	502	7½ miles from last halting place road crosses the Yuchu stream flowing from the east and joining another stream which issues from a square lake about a mile broad and about 3 miles west of the road. The united stream flows north and is called the Nagchu. The lake is said to be in a large level valley, 32 miles by 8. About 4 miles beyond the Yuchu stream is the Yula pass, with an easy ascent over a spur of the range to the east. Two snowy peaks are visible from it.
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46	Camp on stream	Mane Khorchen	20	522	The road to this place goes up an easy ascent of 5½ miles to the Karchenla pass over a spur from the range to the east, and 14½ miles further reaches the left bank of the Nagchu (2½ feet deep 40 paces wide) on which is Mane Khorchen.
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ROUTE No. 1—*contd.*

From here a straight road branches to Siling or Sining, a large city of the Chinese empire situated about 60 miles to the east of Koko Nur lake. See Route No. 63.

47	Mane Khorchen	Shiabden	..	5 $\frac{1}{2}$	527 $\frac{1}{2}$	The road to Shiabden gampa, crosses a stream coming from the left about 5 miles
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from Mane Khorchen, which, 2 $\frac{1}{2}$ miles further down, falls into the Nag Chu. This river is said to water the Hor district to the north east. $\frac{3}{4}$ mile further the road reaches Shiabden gampa. Latitude 31° 28' 27", height 14,930 feet. 100 *da'as* live here; the place is surrounded by about 150 houses and tents. Shiabden gampa is in the Nagchukha district which contains some 3,000 tents of nomads, some of whom are much addicted to robbery, which they commit far off to the west. Grass abundant. Climate cold. Supplies procurable. 1 $\frac{1}{4}$ miles to the south is a group of hot springs, temperature 140°.

48	Shiabden	..	Thaigur La	..	8 $\frac{1}{2}$	536 $\frac{1}{2}$	The road to Thaigur La pass crosses a spur about 5 miles from Shiabden gampa, and
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3 $\frac{1}{2}$ miles further reaches the Thaigur La pass by an easy ascent. After passing the spur the road crosses the same stream which is crossed before reaching Shiabden gampa. The camping-ground is a little beyond the pass.

Two miles north of the pass is lake Chomora, 2 miles by 1 $\frac{1}{2}$. Nomad encampments seen here. Eastwards of lake a road runs to Ta-chien Lu. See Route No. 62.

49	Thaigur La	..	Base of mountain.	5 $\frac{1}{2}$	541 $\frac{1}{2}$	The road after 3 $\frac{1}{2}$ miles strikes into the direct road from Mane Khorchen to Sining.
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The camping-ground was not fixed owing to A-K leaving the road to avoid robbers.

About 40 miles from halting place and 98 $\frac{1}{4}$ ° is Sutodamparabge, a snowy peak.

50	Base of mountain.	Khamlung	..	20 $\frac{1}{2}$	562	About 5 miles from the last halting place the road crosses a stream, 1 $\frac{1}{2}$ feet deep and 12 paces wide, flowing down from the north-west, and 5 $\frac{1}{2}$ miles further reaches the Tajangla pass by an easy ascent: the range runs at a bearing of 117 $\frac{1}{2}$ °.
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(This pass is the boundary between the districts of Nagchukha and Yama; the latter is said to contain 1,500 tents. The district is governed by two Ambans living at Sining.) Descending 1 $\frac{1}{2}$ miles from the pass the road reaches a stream, flowing north, and continuing along its banks for 8 miles crosses another stream, 1 $\frac{1}{2}$ feet deep and 12 paces wide, falling into it from the west; half a mile further the encamping ground is reached (Latitude 31° 57' 44". Height by boiling point observation 15,050 feet). About 50 tents were seen here.

ROUTE No. 1—contd.

51	Khamlung ..	Giara ..	12	574	The road to this place after an easy ascent of a mile, crosses the Khamlung La range,
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bearing $122\frac{1}{2}^{\circ}$ for a short distance from the pass so-called, and then turning to the north-east. To the north of the range is the Ata district containing 500 tents. The road then follows the stream, which flows northwards from the range. After about $6\frac{1}{2}$ miles this stream is joined by another stream from the west, $1\frac{1}{2}$ feet deep and 15 paces wide. The united stream flows along the road $2\frac{3}{4}$ miles, then turns off to the east.

To the left of the pass (Khamlungla) and $4\frac{1}{2}$ miles distant is an encamping-ground where A-K saw about 60 tents, and 5 miles further to the west of the road is a small lake, $3\frac{3}{4}$ miles from which is the boundary between the Ata and Yagra districts. $3\frac{3}{4}$ miles along the road from the lake (*i.e.*, $9\frac{1}{4}$ miles from the last halting place) a direct road branches off to the north-east to Sining *via* Di Chu Rabdeen and Yun. See Route No. 63. This road is unsafe owing to robbers. Two miles to the east is a lake about 8 miles in circumference. $2\frac{1}{2}$ miles from the boundary on the left bank of the Saungchu $1\frac{3}{4}$ feet deep and 25 paces wide, coming from the north-west, is the Giara encamping-ground in the Zagra district, elevation 14,540 feet.

52	Giara ..	Yagratodh ..	21	595	The road to Yagratodh after about 8 miles reaches the bank of the Yagrachu stream,
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which issues from the Dangla range and flowing southwards falls into the Saungchu stream. $9\frac{1}{2}$ miles further is Yagratodh encamping ground—height 14,950 feet.

53	Yagratodh ..	2 miles north of Yagrachu. 2	14	609	Road to camping ground crosses the Yagrachu stream twice, 1st to the left bank immediately
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on leaving Yagratodh, then—about 3 miles further on. (On this bit of road three snowy peaks are visible to the left at distances of 4, $4\frac{1}{2}$ and 6 miles, bearing 312° , $329\frac{1}{2}^{\circ}$ and 339° respectively, and one to the right at a distance of 8 miles bearing $72\frac{1}{2}^{\circ}$.) About $1\frac{1}{2}$ miles further on a stream from the east joins the Yagra chu, and $1\frac{1}{2}$ miles thence another stream from the north-west falls into it. 2 miles further a snowy peak is visible close on the right, and $4\frac{3}{4}$ miles further is reached the junction of a stream from the north-east with the Yagrachu (along which the road runs). (Two snowy peaks are visible from this point at distances of 10 and 16 miles and bearing $62\frac{1}{4}^{\circ}$ and $50\frac{1}{2}^{\circ}$ respectively.) The road then crosses the main stream, and continuing $\frac{1}{2}$ a mile further comes to a stream from the north-west which falls into the former (Yagrachu). 2 miles further is the encamping-ground.

54	2 miles north of Yagrachu.	Kentinsirig ..	21	630	The road to Khentinsirig, about half a mile from last halting place, crosses a small
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stream from the north-west which joins the Yagrachu. About 8 miles

ROUTE No. 1—*contd.*

further two peaks become visible, one distant 4 miles and bearing $326\frac{1}{2}^{\circ}$, and the other 23 miles and bearing $41\frac{1}{2}^{\circ}$. A mile further is the Tangla pass, height 16,380 feet. When A-K crossed it in October 1879, it was covered with two feet of snow. [Tangla is a long range of mountains running from the west and possessing several snowy peaks and spurs. It is the northern boundary of the Yagra district which contains 1,000 tents. About 100 miles to the west of the pass is the Amdo district which is sparsely inhabited by nomads: beyond it to the north and west the only inhabitants are a rude and ignorant race: they dress in and inhabit tents made of skins. Some of them have guns for which they can make their own ammunition, and which are obtained by bartering hides from the Tibetans. They shoot and eat animals, and will eat no vegetables. The inhabitants of the country between the Dam and Yagra districts chiefly live on meat and *saitu* (flour of parched grain). No trees grow in these districts—dried dung is used as fuel—grass is abundant. The country to the north of the pass is altogether uninhabited.]

By an easy descent of $1\frac{1}{2}$ miles, the road reaches a stream which rises in the Tangla range and flowing for $6\frac{1}{2}$ miles along the route joins Lugalachu river which is 2 feet deep and 35 paces wide, and comes from the west. [The united stream after flowing about 14 miles along the right of the road turns off to the east. From this point (the left bank of the river) the track runs through an open country, in which grass and fuel (dried dung of wild yaks) is found in abundance.] Continuing $3\frac{1}{4}$ miles by a wide level road along the left bank of the river Khetinsirig is reached.

A halting place from whence two high, snowy peaks are visible, one bearing 274° and distant $14\frac{1}{2}$ miles, and another bearing $276\frac{1}{2}^{\circ}$, and distant $12\frac{1}{2}$ miles. Wild animals, large and small, are numerous here. Robbers frequent.

55	Kentinsiring] ..	Yakin-hapchiga	22 $\frac{1}{2}$	652 $\frac{1}{2}$	The road to this place passes a lake 7 miles in circumference, at a distance of about 15 miles from the last halting place Kentinsiring), and lying nearly two miles to the right: and $5\frac{1}{2}$ miles further crosses a pass by an easy ascent, and descending thence by an easy gradient for $2\frac{1}{2}$ miles reaches Yakin-hapchiga. A stream issuing from the mountain pass crosses the route about half way between the lake and Yakin-hapchiga, and follows the road (crossing it twice), for about 12 miles along the next march.

56	Yakin-Hapchiga	Atag-hapchiga	25 $\frac{1}{2}$	678	About $\frac{1}{3}$ of the way between Yakin-hapchiga and Atag-hapchiga, the stream leaves the road and goes north-east. About 14 miles from Yakin-hapchiga, two snowy peaks become visible, bearing $300\frac{1}{2}$ and $297\frac{1}{2}^{\circ}$ and distant $11\frac{1}{2}$ and 12 miles respectively. There are two more snowy peaks to the right, bearing $36\frac{1}{2}^{\circ}$ and $35\frac{1}{2}^{\circ}$ distant 24 miles each. $3\frac{1}{4}$ miles further up a stream bearing $212\frac{1}{2}^{\circ}$ crosses the road, and flowing to the right for four miles joins the stream from the south, which leaves the road to flow north-east as already mentioned in this halt. 7 miles onward is Atag-hapchiga, height 15,080 feet.

ROUTE No. 1—*contd.*

There is no trace of the road after Atag-hapchiga.

57	Atag-hapchiga	Maurusen Khua	24½	702½	The road to this place crosses a small stream flowing east at 4½ miles from the last halting place (Atag-hapchiga), and 2¾ miles further crosses a pass by a slight ascent. 17 miles beyond the pass is the encamping-ground Maurusen Khua. (Name means "the bank of the Maurus" which river is also named the Dichu or Thoktho and is the upper portion of the Yang-tse Kiang.) This place is close to a small fresh water lake. The latitude of Maurusen Khua is 33° 48' 25", height 14,230 feet.
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58	Maurusen Khua	Bugu Magnai	22½	724½	On the route to this place, at about 2½ miles from last halting-place, two snowy peaks become visible near each other, bearing 323½°, and about 16 miles distant: 2½ miles further is the right bank of the Maurus river. [It flows here in 7 channels about 40 paces wide, the entire breadth of the river including the islands being 800 paces: A-K states that the greatest depth was 3 feet. The banks of the channels are boggy. A stream running from the south-west joins the Maurus 2 miles to the south-west of the route. A-K found small bushes, called by Tibetans <i>taru</i> , about a foot high along the banks of the river. The river here forms the boundary between the Chinese and Tibetan dominions. Height on left bank of river 14,660 feet.] 4½ miles further is a pass having a slight ascent; five miles beyond the pass a snowy peak is visible, distant 37 miles and bearing 110°. About 13 miles from the pass is the halting-place Bukhmangne. [From the left bank of the river to Bukhmangne the water is brackish.] Close to Bukhmangne is the pass where A-K halted.
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The general character of the pass close to Bukhmangne and the neighbouring plains is that they are bare of trees, although covered with grass and verdure. Dry dung of the wild yak is used for fuel.

59	Bugu Magnai ..	Kagchinar ..	15	739½	The track to Kagchinar, 10 miles from the last halting-place (Bukhmangne), crosses the large river Ulagmiris, Namchuthai, Ulangmiris or Chu-Mar (all of which names "Red river"). [This river flows to the east and joins the Maurus river, and the united stream meets the Ma-Chu at the Dichu Rab-dun ferry. It here separates into 10 small channels averaging about 35 paces in width. The entire bed including the islands is 1,200 paces broad, and the river was nowhere more than 3½ feet deep.] Height on left bank of river 14,640 feet. Five (5) miles further is Kagchinar encamping-ground. There are several pools of fresh water here.
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60	Kagchinar ..	Dungbura Chadamo	20½	760½	The road to Dungbura Chadamo crosses a (<i>chachu</i>) salt water stream 10½ miles from the last encamping-ground, from the north-west and flowing south-east. 5¾ miles
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ROUTE No. 1—*contd.*

further up, it crosses another *chachu* (salt stream) 1 foot deep and 20 paces wide flowing from the left, which issues from the Dungbura range. From this point a snowy peak is visible distant 17 miles, bearing $126\frac{1}{2}^{\circ}$; 4 miles further on the same stream is recrossed. At this point is Dungbura Chadamo. Road good.

[*Dung* means a shell; *burna* means blowing.] *Chadamo* is Mongolian for "this side."

61	Dungbura Chadamo.	Dungbura Nadamo.	20 $\frac{1}{2}$	781	The road to Dungbura Nadamo, at $5\frac{1}{2}$ miles from the last encamping-ground, crosses a
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stream from the north, which coming from the Dungbura range joins the *chachu* (salt stream). [The joint stream below the encamping-ground is brackish, but about that point it is fresh.] $6\frac{1}{2}$ miles further is a high peak of the Dungbura range, distant 5 miles, bearing $239\frac{1}{2}^{\circ}$; $1\frac{3}{4}$ miles further is the Dungbura Kuthul pass which has an easy ascent. [The general direction of the long range bearing this name is from east to west.] $1\frac{1}{4}$ miles from the pass a stream issuing from the range flows along the route; 7 miles from the pass is Dungbura Nadamo. Traces of a road visible but stony and narrow.

Dungbura-Nadamo means "that side."

62	Dungbura Nadamo.	No name—pools of fresh water.	19	800	The road to this halting-place comes to a stream from the north which falls into that
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issuing from the Dungbura range. $4\frac{1}{2}$ miles further it crosses to the left bank of the stream which A-K says was $1\frac{1}{2}$ feet deep and 30 paces wide. $\frac{1}{2}$ mile further a stream from the south joins the latter. 5 miles further the stream which follows the route from the Dungbura range diverges north-east. $4\frac{1}{4}$ miles further a brackish stream crosses the road towards the east. 4 miles beyond are the pools of fresh water where the halting-place is.

This halting place cannot be fixed as A-K wandered off the road in the snow.

63	Pools of fresh water.	Stream near base of the Kokoshili range.	18 $\frac{1}{2}$	818 $\frac{1}{2}$	Road to this not exactly known as A-K diverged from the right track after crossing the brack-
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ish stream (see 62nd halt above) being unable to see the road beneath the snow. He says he struck eastwards for 3 miles from last place to regain the road. $\frac{3}{4}$ mile from last place he crossed a low easy pass and 8 miles beyond (being now on the right route) a stream from the north. 10 miles further is the base of the Kokoshili range and the stream from the north where A-k halted.

64	Stream near base of the Kokoshili range.	Kokoshili camp-ing ground.	16	834 $\frac{1}{2}$	Road follows the stream from the north for 5 miles and cross the Kokoshili Kuthul pass
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which has an easy ascent. 11 miles beyond the pass is the Kokoshil encamping-ground. (Lat. $35^{\circ} 10' 37''$, height 13,430 feet.)

ROUTE No. 1—*contd.*

On the right bank of a stream, $1\frac{1}{2}$ feet deep and 15 paces wide, which rises in the Kokoshili range near the pass and flows along the road northwards for 18 miles, then turns east.

A Mongolian caravan was met at Amthun by A-K in October. It had been unable to pass southwards because of the snow and was returning north.

[The general direction of the Kokoshili range is from east to west. Snow fell and detained A-K for two nights in October.]

65	Kokoshili ..	Small fresh water lake.	10	844 $\frac{1}{2}$	Half frozen in October. 7 miles from last halting place the stream, which rises in the Kokoshili range and flows north, turns east. (See 64th halt.) $1\frac{1}{2}$ miles further is a low pass, then a gradual descent of $1\frac{1}{2}$ miles to the fresh water lake. [Snow all along the way in October.]
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66	Small fresh water lake.	Left bank of Chu Mar.	7	851 $\frac{1}{2}$	$2\frac{3}{4}$ miles from last halting place is a small lake, and $4\frac{1}{4}$ miles further the Chu Mar river. [A-K found no ferry over this river which he describes as 2 feet deep. The bed is very boggy, and difficult to cross. It was half frozen in October and A-K's party had to cut a way for themselves; as the ice would not bear a man's weight. A pony and a mule stuck in the bed of the river and were lost.] Height 14,050 feet. Entire breadth of river about 700 paces, it is 2 feet deep and is here divided into five channels. Three snowy peaks visible from the right bank of the river at distances of 36, $38\frac{1}{2}$ and 32 miles and bearing $311\frac{1}{2}^{\circ}$, $318\frac{1}{2}^{\circ}$, and 356° , respectively. The river is said to flow into the Chinese empire.
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67	Left bank of Chu Mar.	Mugzisolma ..	11 $\frac{1}{2}$	863 $\frac{1}{2}$	One mile from last place the road crosses the Angritakshia stream which issues from the Angritakshia range and flowing south along the road for $15\frac{3}{4}$ miles goes off to the west, where its course is not known, returns and crosses the road (as above mentioned), and joins the Machu river. $10\frac{3}{4}$ miles from stream is Mugzisolma. Latitude $35^{\circ} 33' 35''$, height 13,690 feet.
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A halting place on the bank of a stream, which, flowing from the north changes its course towards the east. Only horse-dung fuel (inferior to yak dung) obtainable.

68	Mugzisolma ..	Angirtakshia ..	13 $\frac{1}{2}$	877	$6\frac{3}{4}$ miles from last place road crosses the Angirtakshia stream a second time (see 62nd halt above), and following up its right bank for $3\frac{1}{2}$ miles arrives at a place where a stream from the north joins it. $3\frac{1}{4}$ miles further is the Angritakshia encamping-ground.
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The road from the Dam district (see halt No. 42) is generally speaking good.

ROUTE No. 1—*contd.*

69	Angirtakshia ..	Turning off of stream from road.	14½	891½	Road is rugged, stony and narrow with several ascents and descents. One mile from last place
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the road crosses a stream which joins the Angirtakshia from the north. 2½ miles further on another stream from the west joins it. 5½ miles on is the Angirakshia Kuthul (pass). After a stiff descent of 1¼ miles is the source of a stream which follows the road for 4 miles and then turns off east (8½").

Camping-ground 12 miles east of pass. Snow fell here in October; grass scarce in consequence.

70	Turning off of stream from road.	Amthun ..	10½	901½	1½ miles from last place the road crosses a stream from the west,—a tributary of the stream
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from the south which turns east (see 69th halt above). Then a steep ascent of a mile to the Naichi Kuthul pass, thence an easy descent of 8 miles to base of pass, which place is Amthun.

[The Naichi range is a small range which shoots off from the long range of Angirtakshia.]

Amthun Is situated at the junction of the Naichi-Gol river from the west, and a stream from the Naichi-Khuthul pass. Grass is abundant, and firewood (from a thorny tree about 6 feet high) obtainable. Mongolian nomads encamp here for a part of the year to pasture their animals.

71	Amthun ..	Naichi ..	6½	907½	From Amthun the direction of the road changes eastwards. The general direction of the Naichi
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valley, which is a subdivision of the Thaichinar district, is from west to east. The level portion is about 50 miles long with an average breadth of 3 miles. It is bounded on every side by low mountains, on which snow seldom falls and never lies. The valley is intersected lengthways by the Naichi Gol river, which receives only a few tributaries from the mountains, but is mostly fed by numerous springs of fresh water along its banks. The ground is generally smooth, being only furrowed here and there by the beds of dry mountain torrents. The valley is covered with rich pasturage which affords sustenance to large herds of ponies, sheep (with thick tails), camels (Bactrian), and goats. At the eastern end of the valley the river widens to thrice its previous breadth. This valley is occupied by nomads who dwell in tents, 10 in number, each containing about six souls. They shift their camp from place to place along the whole valley for convenience of pasturage. Their diet chiefly consists of milk and boiled flesh. Grain forms only an inconsiderable portion of their food and is imported from the Khorlu district about 100 miles to the north. These people are hospitable. They milk their mares, this when rendered acid by the addition of sour milk is called *cheka* and a kind of spirit distilled from it is called *arki*. The Mongolians are well built and stout, but timid. Their marriage customs are very simple. Yaks are rare here.

From Yagra to Naichi the country is uninhabited (see 49th halt). Naichi is 6½ miles from last halting place.

ROUTE No. 1—*contd.*

72	Naichi ..	Bank of Naichi Gol river.	8 $\frac{1}{2}$	916 $\frac{1}{2}$	8 $\frac{1}{2}$ miles from last place on the bank of the river which runs along the road ; two snowy peaks on left of the halting-place at 334° and 31 $\frac{1}{2}$ ° respectively.
73	Naichi Gol ..	Thaglaga ..	9 $\frac{1}{2}$	925 $\frac{1}{2}$	7 miles from last halting-place road crosses to left bank of the Naichi Gol river. 2 $\frac{1}{2}$ miles further is Thaglaga.

[The Naichi Gol river is 40 paces wide, 2 feet deep, and has a rapid current.]

It rises to the west of the road which it joins at Amthun, at which place it receives a stream from the Naichi Kuthul pass. It then flows eastwards, following the road about with occasional slight diversions for about 100 miles, after which it turns north and flowing for 40 miles empties itself into the Hara Nur (lake). Thaglaga is an encamping place of the nomads within a wide, level plain. Fuel and grass abundant.

[These encamping-places are distinguished by circular raised platforms over which the tents are pitched and on which fires are lighted in iron grates.]

74	Thaglaga ..	Dry bed of stream, tributary of Naichi Gol river.	9 $\frac{1}{2}$	935 $\frac{1}{2}$	7 $\frac{1}{2}$ miles on is a tributary stream from the south. [Peak 5 $\frac{1}{2}$ miles on the right at 164°.]
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$\frac{1}{2}$ miles on dry tributary stream from the north.

Grass and fuel abundant here. One mile from last place road crosses a dry bed of a stream from the northern mountains.

75	Dry bed of stream.	Shiarthoge ..	9 $\frac{1}{2}$	945	9 $\frac{1}{2}$ miles along left bank of river to Shiarthoge encamping ground. Height 10,370 feet.
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Two tributary streams, one (dry) from north, the other from the south. Grass and fuel abundant.

76	Shiarthoge ..	Saikhanthoge	5 $\frac{1}{2}$	950 $\frac{1}{2}$	The road follows the river for 1 $\frac{1}{4}$ miles, when it turns aside (to bearing of 114 $\frac{1}{2}$ °) and winds
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round a spur for three miles after which it flows north-east.

A stream from the south (probably the same stream which issues from the Angirtakshia range and, flowing along the road for four miles, turns to a bearing of 82 $\frac{1}{2}$ ° (see 69th halt), joins river opposite the foot of the spur. 1 $\frac{1}{2}$ miles on is the Khokhotham pass, a low spur but with a steep ascent. 2 $\frac{1}{4}$ miles on is the left bank of the river. $\frac{1}{4}$ mile on crosses river at Saikhanthoge. [River here 70 paces wide, 3 $\frac{1}{2}$ feet deep, current rapid, difficult to ford.]

Saikhanthoge is a nomad camping place, the last (to the north) of the valley.

ROUTE No. 1—*contd.*

77	Saikhanthoge	Gile	16½	966½	From Saikhanthoge the road turns northwards. It lies away from the river, 2½ miles from last place crosses stream from east, then three dry streams at distances of 5½, 12½ and 15 miles respectively from the last halting place. All four are tributaries of the Naichi Gol river. 16½ miles from last place is Gile encamping-ground. Firewood obtainable, but no grass.
78	Gile	Right bank of the Naichi Gol river.	17	983½	4½ miles from last halting-place passes ½ mile east of the junction of two dry streams with river, coming from the east and west.

Here road passes out of the Naichi Gol valley and comes out upon an open sandy plain.

[The river from Saikhanthoge up to the junction flows in a deep channer and the lateral valleys are almost all dry. Hence there is no grass along this portion of the route, only a plant about 3 feet high which makes a very inferior substitute, and grows sparsely.]

5 miles further crosses a dry tributary stream from the east 3¾ miles on, a spur 7 miles off bearing 225° is visible. 4 miles on is the encamp ng-ground. It is in an open sandy plain; no fodder of any sort for cattle.

NOTE.—Of the two chains of mountains which compose the Naichi Gol valley, one turns to the west, and the other runs east. Thus the valley ends and the sandy plan begins. The country north of the range running west is desert.

79	Right bank of the Naichi Gol river.	Golmo	11½	995	After 6½ miles the sandy plain ceases and a grassy track begins. Here fuel is abundant. 5 miles on is Golmo. From the point where the grassy track begins, the road changes eastwards. At this point also the Naichi Gol river turns off, and flowing north for 40 miles through a desert, is said to empty itself into the brackish Hara Nur (lake), which is about 60 miles in circumference and has no outlet.
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Golmo is situated in Lat. 36 25' 18", height 8,790 feet. A nomad camp situated in a densely wooded forest, 6 miles broad and about 100 miles long. The forest trees,—viz., the *humbu*, *harmo*, and *chhak* are about 6 or 7 feet high. The *harmo* bears a fruit which is used in commerce. Tall grass grows over nearly the whole forest. Some 50 nomad tents are scattered here and there. The wealth of the Mongolian nomads consists in live stock. Their food is chiefly boiled flesh, with butter and *sattu* (corn). Brick tea is used. The climate is mild and healthy.

80	Golmo	Hurthothale ..	12½	1,107½	The road passes through thick forest and 7½ miles from last place crosses a stream from the south. [Two peaks visible on the right at distances of 15½ miles each,
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ROUTE No. 1—*contd.*

bearing $202\frac{1}{2}$ and 162° .] 5 miles further is Hurthothale. It is a nomad camp of 20 tents. There is an ancient ruined enclosure here with mud walls. Grass and fuel abundant.

81	Hurthothale ..	Thagthe ..	15	1,122 $\frac{1}{2}$	The road continues through thick forest and after $6\frac{3}{4}$ miles peak on the right visible.
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$5\frac{3}{4}$ miles on crosses stream, which flows north and is lost in sand. [On this stream is a nomad camp called Thugthe, from whence a route branches off northwards to Chonju.] $4\frac{1}{2}$ miles on is Thathe, a nomad camp of 50 tents. Water, which is near the surface of the ground, obtained from wells. No spring near camp.

82	Thagthe ..	Chugu ..	14 $\frac{1}{2}$	1,137	The road still through forest is $4\frac{1}{2}$ miles to Dala, a nomad camp of four tents. $6\frac{3}{4}$ miles
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further on a spring of fresh water; $3\frac{1}{4}$ miles further is Chugu, a nomad camp on bank of stream.

83	Chugu ..	Danahotho ..	12	1,149	No springs along road, but water exists in the neighbourhood. Dara-hotho is a nomad camp
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of two tents.

84	Danahotho ..	Thingkali ..	20	1,169	Along the road there are several fresh water springs. $4\frac{3}{4}$ miles from last place road crosses
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stream from the south. $6\frac{1}{4}$ miles further a low sand ridge runs south-west and north-east. $5\frac{3}{4}$ miles further crosses a brackish stream running north-east, on the banks of which salt is encrusted. $3\frac{1}{4}$ miles further is Thingkali. Nomad camp of two tents. No springs along road, but water exists in the neighbourhood. See Route 64, stage 3. Near the junction of the stream, coming from the south-east, with the Bai Gol river. 100 tents and 10 *kacha* houses, few fields. One annual crop of barley.

85	Thingali ..	Harori ..	7	1,176	From Thingali it is necessary to go back over the same road for a mile to hit the right
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road to Harori. Then it runs almost north. Harori is a nomad camp of two tents.

86	Harori	Dabasuthu ..	16 $\frac{1}{2}$	1,192 $\frac{1}{2}$	Road level and sandy. Runs for a mile along left bank of Bai Gol river, then crosses to
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the right bank (at this point river 4 feet deep, 20 paces wide). $\frac{1}{2}$ a mile further to the north-west is a *kacha* walled enclosure used by the nomads for storing their superfluous property. $2\frac{1}{4}$ miles further 4 peaks on the right. 13 miles further is Dabasuthu, a nomad camp of four tents.

ROUTE No. 1—*contd.*

87	Dabasuthu ..	Harahusun ..	8	1,200½	An encamping-ground on the right bank of a branch of the Bai Gol river, 2 feet deep, 10 paces wide which flows north-west and is lost in the desert. See Route 64, stage 2. The forest which begins at Golmo ends here.
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88	Harahusun ..	2 miles beyond an easy pass.	12½	1,213½	The road crosses three streams from the south-east at distances of 4½, 7½, and 8 miles from the last halting place: [the water of all three is brackish, particularly that of the 2 latter, which flow in deep channels and whose banks are crusted with salt: there is no fresh water for miles, but in winter it can be got by scraping the upper layers of the frozen surfaces of these streams. In summer travellers have to supply it from Harahusun. These streams, like the others above described, are all lost eventually in the sand.] 2 miles from the last stream is a low pass—and 2 miles further A-K's halting place.
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[This mountain chain runs north of the Thaichinar district from east to west and is there of a sandy formation. It separates the Thaichinar and Khorlu districts.]

At camping-ground there was no grass and no water, but firewood was abundant.

89	2 miles beyond easy pass.	Tsagan-namaga.	21½	1,235½	Road good. An encamping ground at the southern corner of the Thosu Nur (lake), about 12 miles long and 8 miles across at its broadest. Its water is brackish and impregnated with sulphur. There is a hot spring close to the camp which flows into the lake.
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Water obtained by scraping the ice—(see 88th halt). This place is at the junction of the roads from the Thaichinar and Jun districts which proceed by the western and eastern shores of this lake respectively to Hoiduthara and Gobi in the Khorlu district. This latter district is the granary of the nomads of Thaichinar and Jun.

Plenty of firewood from dwarf trees, but little grass.

90	Tsagan-namaga	Sukhai ..	19	1,254½	12 miles from last place road arrives at right bank of the Kurlik Gol, 3 feet deep, 25 paces wide, which flows from the Kurlik Nur (lake) into the Thosu Nur (lake) which latter is said to have no outlet and to be surrounded by a low sandy ridge. 1½ miles further, the route leaves the stream, and 5½ miles further arrives at Sukhai.
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[About 20 miles to the east-south-east of Gobi and at the eastern end of the Kurlik district there is said to be a nomad camp named Golmo, containing about 40 tents and 10 store houses like those at Gobi.]

ROUTE No. 1—*contd.*

About 55 miles further to the east is Kukhu, the seat of a *Beli*. *Beli* is a higher rank than that of a *Besi*. Tulang, the seat of the *Whang* (raja), is said to lie 40 miles to the east-south-east of Khukhu. The *Whang* is the chief officer of the Koko Nur province, which embraces the Tulang Khukhu, Kurlik Thaichinar, Jun, Barong, Shiang and Banakhasum districts.

From Tulang (Dulan-kit) a road proceeding south-east for about 25 miles and thence north-easterly for about 40 miles, leads to the western side of the Koko Nur (lake) or Cho Onbo (blue lake).

The lake is about 280 miles in circumference and contains a small island, called Chu Ning (heart of lake), on which is a *gomba*, inhabited by 20 *dabas* and a spring of fresh water. The *dabas* of the island gather their supplies of food during the four months of winter, when the lake is frozen and they can cross to the mainland on the ice.

A considerable number of fish are taken from the lake for sale at neighbouring settlements. Salt from the banks of the lake is also sold.

Sukhai is situated in Lat. 37° 17' 23", height 8,770 feet.

Hoiduthara.—Lat. 37° 20' 32", height 9,200 feet.

The winter residence of the Hoiduthara men—about 100 tents.

The nomads remain here for four months in winter to pasture their camels on the dwarf trees, with which this plain, which is about 12 miles broad and 50 miles long, abounds.

Ponies and other cattle are sent to the mountains north of Hoiduthara where there is good grass. About 4 miles to the east is the Kurlik Nur (lake), 10 miles long and 9 miles broad, which is fed by a stream and a river; the former coming from the north-west, waters the barley fields at Horga and Hoiduthara which produce much grain, and the latter, from the east, has Gobi on its right bank, close to the lake. Gobi is a large nomad camp of 100 tents and has some ten subterranean store-houses for grain which are filled yearly from the cultivation at hand. It is the seat of the *Besi* (chief), and is about 17 miles from Sukhai. Five peaks with patches of snow on them are visible from Sukhai to the north-east. They are about 20 miles off and are on a long range of mountains having a direction east by south and west by north.

91	Sukhai ..	Hoiduthara ..	5	1,259½	¾ mile from last place crosses stream flowing from the north-west into the Khorlu Gol
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river. 2½ miles further is a small stream, which joins the Kurlik Nur (lake). 1½ miles on is Hoiduthara. This camping-ground has been already mentioned in last halt. Sowing takes place here in April, and harvest is reaped in September.

92	Hoiduthara ..	9½ miles beyond Horga.	11	1,270½	From Hoiduthara the road turns west and 1 mile from last place crosses stream which joins Kurlik Nur (lake) (see 87th halt). [Water has to be carried from here as there is no more along the road for some distance.] ¾ mile further is Horga, which has fine granaries. 9½ miles on A-K's halt.
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ROUTE No. 1—*contd.*

A dry water course. Firewood abundant but no grass; five peaks visible from here at $180\frac{1}{2}^{\circ}$, 260° , 308° , $322\frac{1}{2}^{\circ}$ and 356° and distant 10, 11, 11, 12, and 19 miles, respectively.

93	9 $\frac{1}{2}$ miles beyond Huga.	93rd halt ..	15 $\frac{1}{2}$	1,285 $\frac{1}{2}$	The road is in a narrow valley along the left bank of a dry stream. 8 miles from last place
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a fresh water spring a mile to the left. 5 $\frac{1}{2}$ miles further, road leaves dry stream and follows another, a tributary of the former. [3 miles north-west of this is a fresh water spring.] Two miles further A-K's halt. There is no description of the place.

94	93rd halt ..	Open country at the end of a dry water course.	18 $\frac{1}{2}$	1,304 $\frac{1}{2}$	The dry stream (see 93rd halt) ends 5 $\frac{1}{2}$ miles from last place. [A peak and a mound of
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red clay visible from here bearing 37° and $324\frac{1}{2}^{\circ}$ and distant 11 $\frac{1}{2}$ and 3 $\frac{1}{2}$ miles respectively.] Three miles further is a pass with an easy ascent. Thence following another dry stream is a salt water spring, 4 $\frac{1}{2}$ miles from pass, $\frac{1}{2}$ mile further a road branches off to Ikhe Tsaidamin [this road, though direct, is seldom used owing to scarcity of water]. 4 $\frac{3}{4}$ miles further the road leaves the water course and enters somewhat open country. (A-K's halt.)

Pasturage for camels abundant. Water obtainable during the four winter months from a hollow full of snow.

95	At end of a dry water course.	Chonju ..	22 $\frac{1}{2}$	1,327	The road is through a level plain, 6 $\frac{1}{2}$ miles from last place four peaks visible. 16 miles
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further is Chonju.

Chonju is situated in a grassy plain and watered by a stream from the mountains to the north-west which disappears in the desert a few miles south of Chonju. Some of the nomads of Bhaga Tsaidamin are said to bring their cattle here for pasture from February to April. From Chonju a path branches off southwards to Thagthe in the Thaichinar district (see 81st halt) which the inhabitants of that district generally use when they go to buy corn at Hoiduthara.

Firewood abundant at Chonju.

96	Chonju ..	Baga Tsaidamin	24 $\frac{1}{2}$	1,351 $\frac{1}{2}$	Following up the stream for 2 miles the road crosses it where it is 15 paces wide and 1 $\frac{3}{4}$ feet deep. [From this point two peaks are visible bearing $194\frac{1}{2}^{\circ}$ and $259\frac{1}{2}^{\circ}$ and distant 13 and 8 $\frac{1}{2}$ miles respectively.]
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5 miles further is the base of a spur from a range to the left, 6 miles further the eastern corner of the Bhaga Nur (lake) is visible 3 miles on the left, bearing $267\frac{1}{2}^{\circ}$.

[This lake (somewhat brackish) has an irregular oblong shape, about 6 miles by 4.]

ROUTE No. 1—*contd.*

1½ miles further is Bhaga Tsaidamin.

Tsaidamin signifies market. The Chinese used to come here for borax which is found incrustated on the margins of the Bhaga Nur and Ikhe Nur lakes.

There are about 50 scattered tents here. As there is no cultivation on this side of Horga, supplies are dear; firewood is obtained from the distant mountains, and dry, yak and cow dung are used for fuel; grass and water abundant.

97	Baga Tsaidamin	Junction of two roads to Ikhe Tsaidamin.	22½	1,374½	Fresh water spring 7½ miles from last place continues along the base of mountains on
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the right for 6½ miles to an easy pass.

[This range ends abruptly about 8 miles to the east.] Descending gradually for ½ mile two snowy peaks appear bearing 353½°, 350½°, and distant 33 and 31 miles, respectively. 4½ miles further over a level plain crosses the stream flowing south-east to Chonju (see 96th halt), 3½ miles on strikes direct road (see 94th halt) to Ikhe-Tsaidamin.

98	Junction of two roads.	Ikhe Tsaidamin	13	1,387½	Recross stream (see 97th halt), now flowing from the north, about 4 miles from last place.
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Mongolian tents scattered on its bank. There is a hot spring about 2 miles north; 9 miles on is Ikhe-Tsaidamin. Height 10,480 feet. 100 scattered tents.

This place formerly exported borax to China. The Ikhe Nur (lake) close by is 16 miles by 8, and is supposed to be fed by springs only, several of which are visible from the road along its surface. Supplies procurable but dear: grass and firewood abundant. Two snowy peaks, 33½° and 28°, distant 20 miles each, are visible.

99	Ikhe Tsaidamin	Igia ..	16½	1,403½	Cross a stream 13 miles from last place, 1½ feet deep, 35 paces wide, flowing south into the
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desert. 3½ miles on is Igia, close to a range of hills, where there is a large spring of fresh water said to be very wholesome. Igia is covered with rich pasture, and is frequented by the nomads of Ikhe-Tsaidamin during March.

100	Igia ..	Urel ..	21½	1,425½	8½ miles from last place cross a low spur from range to the left. 3½ miles on crosses a
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brackish stream, 3 feet deep, 5 paces wide. 11 miles on is a fresh water stream, 1½ feet deep, and 25 paces wide, flowing to the south. [From here a path leads to Makha, a nomad camp about 30 miles west by south. This encampment of some 40 scattered tents is in a dense jungle of small trees from which the Mongolians obtain the material to make wooden tent frames.] 2 miles further up the bank of the stream is Urel.

ROUTE No. 1—contd.

Nomad encampment, 3 tents. Grass and firewood abundant.

101	Urel	..	2 miles beyond low pass.	13	1,438½	Over sand and stony in parts; 11 miles from last place; a low pass. Two miles on A-K's
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halt. Uninhabited place. No water or grass, but little firewood.

102	2 miles beyond low pass.	Chaga	..	33½	1,472	7½ miles from last place enter a large open plain, and continuing across it for 26½ miles reaches
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Chaga also called Ulunggacher. An encamping-ground close to a fresh water spring. From here a road leads south to Makha. There is no grass or water between Urel and Chaga.

103	Chaga	..	Yembi	..	17½	1,489½	4 miles from last place, Obo, a place of worship, about 15 tents. 13½ miles further is
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Yembi, in Saithang, an extensive grassy plain, surrounded on all sides by a sandy waste called Shialla. The plain is about 20 miles long with an average breadth of 17 miles, and is irrigated by several fresh water springs. A few small salt water pools supply the inhabitants with salt. There are two lakes of which the water is drinkable, one to the north-north-east and the other to the south-west of Yembi, about 9 miles apart, joined by a small stream running from the former into the latter.

They are nearly equal in size, about 4 miles long and 2½ miles broad and are full of fish on which a kind of otter preys. There are some 300 tents scattered about Saithang; but this number is reduced to 50 in winter when the cattle especially the young ones, are, for protection against the extreme cold, driven into the small narrow valleys on either side of the northern range, which is about 30 miles distant; good pasturage abounds in these valleys.

Wild men exist in some of the valleys of the northern range. Also wild Bactrian camels, horses, asses and many others. It does not rain more than three times during the whole season; thunder and lightning are rare too; snow falls very seldom. Dust storms occur constantly from February to June; from the middle of June to the middle of September the springs remain unfrozen.

Thorkoth, an extensive and rich tract of Mongolian territory, lies about a month's journey to the north-west of Saithang. It is governed by a *Whang*.

104	Yembi	..	Harasirig	..	10	1,499½	3½ miles from Yembi cross the stream which joins the two lakes. [From here a high
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snowy peak called Amandapara bearing 310° and distant about 30 miles.] 6½ miles further is Harasirig.

An encamping-ground at the northern end of the Saithang plain.

ROUTE No. 1—*contd.*

105	Harasirig ..	Encamping-ground (no name).	25½	1,524½	Traverses the sandy tract (Shialla) which is here about 13½ miles broad, to a dry watercourse running from a narrow valley from the north-west. Following up this ravine for 3 miles, crosses a pass with an easy ascent, and thence following another dry watercourse for 3½ miles, passes a spur at the base of which the water-course meets a small stream; 1 mile further is the sandy plain.
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The encamping-ground is near the northern end of a sandy plain.

Grass and firewood abundant. The Lob Nur lake, around which is a population of Tanthus (men with white turbans), Mahomedans by religion, is said to be about 250 miles west. The road to it is uninhabited and grass and water can only be obtained at certain places.

106	Encamping ground, stage No. 105.	Encamping-ground (no name).	25½	1,550	Followed of stream for 1 mile, then leave it and 17½ miles further arrive at a small spur from a sand ridge running east to west. [From here a road branches off to Naiche city about 55 miles to the east. This city is said to contain a bazar surrounded by houses built of unburnt bricks, about 1,000 in number, and is well known as a market for the sale of corn.] 6½ miles further, between 2 sand spurs is the camp at the base of a sand ridge. No grass, water, or firewood.
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107	Stage No. 106..	Changja ..	12½	1,562½	1½ miles from last place cross the sand ridge (see 106th halt), and traversing a sandy plain 11 miles broad, reach Changja.
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An encamping-ground on the left bank of a river. Grass and firewood obtainable, a few dwarf trees. A cart road runs up the left bank of the river to the south-east, whence firewood and a sort of long grass are brought to the cities of Saitu and Nahuli.

108	Changja ..	Saitu ..	23½	1,586½	After following the left bank of the river for 3½ miles, cross a low sandhill, and 3½ miles further is a rest-house. From here a road branches off to Nahuli about 20 miles north, containing about 500 houses (of sundried bricks) and a small corn bazar. 1½ miles further are two more rest-houses, and 13½ miles further the suburbs of Saitu (cultivated fields and houses, here and there). 1½ miles through these, then cross the river by a bridge 250 paces long and 5 paces broad with railings on both sides of it.
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[The river (here called Saitu) of which A-K did not hear the name is here made to flow in two deep narrow channels by a large mass of masonry built in the middle, on which and on masonry on either side of the narrow streams, the bridge is supported. The bridge consists of timber covered over with planks and a layer of "kankar" (a kind of limestone) so as to

ROUTE No. 1—*concl'd.*

make it passable for carts. The river abounds with fish which are caught by angling.]

300 paces from the eastern end of this bridge is the fort of Saitu.

Saitu (called Sach by Mongolians) is a large fort within which are the palace of the Governor and many houses. It is situated on the right bank of the river, which after watering the patches of cultivation near Saitu, ultimately disappears in the sandy waste to the north. It is irregular in form and construction, and about 6 miles in circumference. The outer wall which is throughout of sundried bricks plastered over with earth, is loop-holed, has bastion-towers, and is protected by a ditch. Its western face is separated from the suburb which extends to Nahuli, by the river which is the only source of water-supply.

Saitu contains a long bazaar with a *kacha* road passing through it. On either side of the bazar are single storied houses built of sundried bricks containing several rooms, one of which is set apart as a sleeping place for the servants: and round its walls a platform runs, about 3 feet high and 5 or 6 feet broad for the servants to sleep on, under which are small recesses for fires in the winter. There are no apertures to carry off the smoke. The estimated number of houses in the fort and suburbs (excepting the western across the river) amounts to 2,000.

The climate of Saitu is generally healthy. *Ne* and millet, *kauli* (a kind of corn used for distilling liquor), Indian corn, *masur* (a kind of pulse) and *matar* (pea) are cultivated. Rice is dear, as it is imported from Yarkand. There are no water mills for grinding corn, horse power being used instead. The fruits and vegetables are better and more abundant than those of Tibet and Mongolia. The apple, pear, plum, cucumber, melon, water-melon, mulberry, walnut, guava, radish, carrot, turnip, mustard, etc., occur.

Route No. 2.

FROM TA-CHIEN-LU (DARCHENDO) TO LEH.

Authority and date.—Explour A-K, 1879-1882, and Captain Rawling, 1904.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
	Ta-chien-Lu ...				Ta-chien-Lu lies in a narrow valley on the banks of the Dar-Chu, a tributary of the Tung

Ho. Ta-chien-Lu is a small city enclosed on all sides by snow-clad mountains which rise in precipices of stupendous height. The climate

ROUTE No. 2—*contd.*

in winter is very severe owing to the snow falling continuously for weeks, while in the hot weather it is comparatively warm owing to the place being surrounded by high mountains. It is a great emporium for tea which is brought by coolies from the east and is dispatched into Tibet on beasts of burden *via* Jyekundo or Batang: principally *via* Jyekundo. See Route 62. Except for small vegetable gardens there is no cultivation in the Ta-chien-lu valley, and some small bushes only grow on the hillsides. Timber and firewood are brought down from the south and corn, etc., is imported from the east.

1	Ta-chien-Lu ..	Chithog Giachug.	8½		The road crosses a bridge, 15 paces wide, then it follows the stream to Chithog Giachug, a posting stage. See Route No. 62, stage 22.
2	Chithog ..	Chachukha ..	7½	18	The road ascends the Gi La (14,690 feet), thence it descends along a stream westwards to Chachukha giachug and 2 houses.
2	Chachukha ..	Anya ..	11½	27½	After 3½ miles the road passes Thicho (15 houses) and at 6 miles crosses to the left bank near a hamlet.
					A giachug and 30 houses.
4	Anya ..	Golothok ..	8	35½	As A-K here wandered off the direct route, the distance is only approximate. 20
					houses and a giachug.
5	Golothok ..	Urong Dongu	16½	51½	At ¼ mile is Golothok village and at 6 miles there is a camping-ground surrounded by forest with grass and firewood in abundance. From there a stiff ascent of 2½ miles leads to a pass whence is a gentle descent of ¾ mile to a stream which flows past Kashi Gumpa (30 houses) a mile to the south. After a steep ascent for a mile the road gains the Kashi La (14,710 feet) from which it descends 2½ miles to a stream which it follows to Urong Dongu. Giachug and 15 houses. The road is good up to 6 miles; it passes several hamlets with cultivation, but after that runs through an uninhabited forest.
6	Urong Dongu	Kharingbo ..	10½	61½	The road, continuing along the stream, crosses to the left bank at Zira (3 houses) at 4½ miles. At 5½ it passes Urongshi (10 houses) on the right bank, where the chief of the Urongshi district, which stretches from the Kashila to Nogchukha, resides.

ROUTE No. 2—*contd.*

A giachug and 15 houses.

7	Kharlingbo ..	Nagchukha ..	10	71½	Continuing down the stream, the road crosses to the right bank at 3½ miles and crosses
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a stream from the north by a wooden bridge at 4½ miles: it then crosses the main stream (by wooden bridges) three times before reaching Nagchukha, which consists of some 40 shops, scattered here and there on the banks of the Nag-Chu, and surrounded by high mountains covered with grass and thick forest trees. Two crops are raised annually here: one consists of barley and wheat; the other comprises millet, lau, turnips, and other edible roots.

8	Nagchukha ..	Margen Dongu	8½	80	The road crosses the river, which is about 100 yards wide, by a bridge, and, after
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following the right bank northwards for ½ mile, turns up a stream from the west. After crossing this stream, which is 15 paces wide and 1½ feet deep, ¼ mile further on, and then another from the left at 2¼ miles, the road follows up the latter for 6 miles.

A giachug and 5 houses. Supplies, grass and firewood procurable.

9	Marben Dongu	Golokthok ..	16½	96½	Continuing to follow the stream, the road at 6 miles crosses a pass by a steep ascent
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and descends ¾ mile to a small giachug and 3 houses. A steep ascent leads to another pass at 8½ miles whence the road leads down to a giachug and 5 houses at 12½ miles. At 14 miles is Golok Gompa a mile to the south. At the end of the march the road crosses a stream, 25 paces wide and 1½ feet deep, to Golokthok giachug and 15 houses on the right bank. The road is rugged, stony and undulating and from the pass at 8½ miles lies in the Lithang district.

There is some cultivation here, and grass, firewood, and supplies are abundant.

10	Golokthok ..	Tamarathong	8½	104½	After 4 miles the road reaches the top of a spur by a slight ascent, and following a stream
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which issues therefrom arrives at a small giachug at 5½ miles. At 7 miles a stream, 15 paces wide and 1½ feet deep, is crossed and ¼ mile further on ascend a pass. Tamarathong giachug, with 7 houses and 10 nomad tents, is 1¼ miles up the latter. The road is good, through a forest; no cultivation. Supplies, grass and firewood procurable.

11	Tamarathong ..	Hapchukha ..	12½	117½	Following up a stream from the south-west a slight ascent leads to a pass and small giachug
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at 3½ miles. The road descends to another small giachug at 7 miles, whence a steep gradient for 1½ miles leads to the top of a pass. Thence the road

ROUTE No. 2—*contd.*

runs along a stream, which rises in the pass, to Hapchukha; a giachug and 10 houses. Supplies, grass and firewood procurable.

12	Hapchukha ..	Litang ..	15½	132½	The road fords several streams and at 6½ miles reaches a small giachug at the junction of two streams. 3½ miles further, the road crosses a pass after a slight ascent, and, running over undulating ground along the base of some spurs from a range on the right, reaches Litang (13,400 feet) a city of 2,500 houses. Litang is situated to the north of a plain at the end of a spur from a range of hills. This plain, about 15 miles by 8, is covered with grass, and is watered by the Li Chu flowing south-east. There is no cultivation and corn is brought three days' journey from the south; while rice and ghur are brought from Yunnan. A road runs from here to Darge Garchen.
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13	Litang ..	Jiambothok ..	13½	146	At 3½ miles the road crosses a stream on the right bank of which is a hot water stream. ½ mile north of the spring is a "Rito" (a place of retirement for religious contemplation) with some outhouses for attendants, where the Lama of Litang resides. At 6 miles the road crosses the Li Chu, 3 feet deep by a wooden bridge, 75 paces long, to a small giachug on the right bank. From here Jiambothok is 7½ miles distant up a stream from the south-west. A giachug and 4 houses. Supplies, firewood and grass procurable.
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14	Jiambothok ..	Garalarcha ..	11½	157½	The road crosses a stream at 1 mile and the Gara La (15,400 feet) at 4½ miles. Descending 1½ miles to a small lake, the road follows a small stream, issuing from it, for the next 5½ miles, passing a small giachug at 4¾ miles. An easy ascent to a spur (7¾ miles) is followed by a descent of 3½ miles along a stream to Gara La giachug, on the left bank. Firewood and grass abundant and supplies procurable. Road stony and without any hamlet or cultivation along it.
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15	Garalarcha ..	Naida ..	19½	176½	Continuing as before, the road fords streams at 2 and 2¾ miles: at 4¾ miles the stream flows into a large one which follows to Ranong (10 houses) where a chief lives (6¼ miles). The route then ascends 2 miles to the north-west to a pass and after a descent of 1¾ miles crosses a stream 30 paces wide and 2 feet deep. Between the eleventh and twelfth miles extends Mane Ringbo, a long wall faced with thin rectangular smooth stone slabs on which sacred formulæ and religious precepts are engraved. The next 3¾ miles to Naida, a giachug and 10 houses. The road passes a few hamlets and some cultivation. Gombone, a place of pilgrimage at the foot of the mountains, is 3 miles distant bearing 317½.
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16	Naida ..	Rathi ..	13½	190	A good path exists the whole way along a stream through a forest of padam trees. It
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ROUTE No. 2—*contd.*

fords several streams, and, about $\frac{1}{2}$ mile from the end of the stage, crosses to the right bank of the stream.

17	Rathi	..	Tashu	..	16 $\frac{1}{2}$	206 $\frac{1}{2}$	Leaving the stream, the road ascends gently for 5 $\frac{3}{4}$ miles to the Rathi La (15,304 feet),
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the boundary between the Litang and the Batang districts. It then descends to a stream which it follows for 1 $\frac{1}{2}$ miles till it reaches the left bank of a large stream from the north. Turning northwards the route is along this last stream. After 5 $\frac{1}{4}$ miles it crosses to the right bank, at a point where it is 25 paces wide and 2 feet deep. Tashu giachug and 15 houses are a mile higher up on the bank of a tributary stream from the north-west. The path is rugged and stony and no cultivation exists. Grass and firewood abundant.

18	Tashu	..	Pangthamo	..	13 $\frac{1}{2}$	220	Proceeding up the stream from the north-west, the road by a steep ascent rises to a pass
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at 6 $\frac{1}{2}$ miles. It then descends 1 $\frac{1}{2}$ miles to a small lake from which a stream issues and flows along the route to Pangthamo, comprising a giachug and 5 houses, in the midst of a thick forest. Path rugged, stony and undulating.

19	Pangthamo	..	Batang	..	13	233	The road continues to follow the stream. At 6 miles there is a hamlet and some cultivation
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and at 11 $\frac{1}{4}$ miles a hot spring and five tanks for the accommodation of bathers. Batang is a small town, elevation 8,150 feet, of some 2,000 houses, including 50 shops, situated in a valley enclosed by hills. Two crops are raised annually as at Nagchukha.

The Abbé Desgodins describes the road between Lithang and Batang as "wretched paths". See route No. 61.

20	Batang	..	Durana	..	19	252	After following the left bank of a stream for 4 $\frac{1}{2}$ miles, and then crossing another stream, the
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road, by an easy gradient, ascends for a mile to top of a spur. The road then lies along the left bank of the Di Chu, coming from the north to the ferry and village of Durana (a giachug and 30 houses). The path is rugged, stony and undulating, and, in the first 11 miles passes a number of hamlets. Grass is scarce; firewood abundant.

21	Durana	..	Konzukha	..	10 $\frac{1}{2}$	268 $\frac{1}{2}$	Cross the Di Chu (300 paces wide with a rapid current) by means of ferry boats. There
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is a hamlet of 10 houses on the right bank. The route keeps to the right bank for 9 $\frac{1}{4}$ miles to a hamlet; from here it leaves the river and follows up a stream through a populated country. The road then ascending slightly, crosses a pass at 16 $\frac{1}{4}$ miles to Konzukha (a giachug and 15 houses) near the

ROUTE No. 2—*contd.*

boundary between the Batang and Makhan districts. Path stony, rugged and undulating.

22	Konzukha ..	Lhamdun ..	19½	238½	The road descends 2½ miles through a thick forest to a stream from the south, 25 spaces wide and 2 feet deep, which it follows up along the left bank for 9½ miles to a small giachug. 2½ miles further on the road ascends slightly over a spur and after descending for a mile crosses a stream, from which a steep ascent of ½ mile leads over a second spur to a lhakhang (temple) on the left bank of stream (7½ miles). 1½ miles further on, this stream joins another flowing south near a hamlet of 10 houses. Half a mile up this second stream is Lhamdun giachug and 20 houses.
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From here a route branches south-west to Chiakta Chaka where salt is found. (Apparently the salt mines at Yer-kala are meant. But see route No. 60 Gartok to Atun-tze.

23	Lhamdun ..	Phula ..	17	305½	Proceeding up stream the road crosses to the right bank of river, 20 paces wide and 1½ feet deep, at 1½ miles, and, passing through an uninhabited district, crosses a pass at 5 miles after a slight ascent. From the pass a descent of 3 miles leads to a ford, 1½ feet deep, below the junction of two streams, 1 mile south of a giachug. Then following a stream from the north-west the road rises easily over a pass and descends along a stream to Phula. A giachug and 20 houses.
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24	Phula ..	Gartok (Kiang-ka).	13½	318½	The road follows up a stream from the north-west, 35 paces wide and 2 feet deep. At 1 mile
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it crosses to the right bank. Gartok is a place of some 700 houses with a large gampa. Two Jongpons reside there and the district is direct'y under the Lhasa Government. There is some cultivation in the vicinity. The general direction of the route from Lhamdun to Gartok is north-west. See Routes Nos. 58 and 60.

25	Gartok ..	Risi ..	13½	332½
26	Risi ..	Nimago ..	15½	347½
27	Nimago ..	Dayagi Sacham	13½	361½
28	Dayagi Sacham	Rasi ..	13½	375½
29	Rasi ..	Asi ..	13½	389
30	Asi ..	Dayag ..	13½	402½
31	Dayag ..	Jiamdo ..	13½	416½
32	Jiamdo ..	Gham ..	11½	427½
33	Gham ..	Wongkha ..	11½	439
34	Wongkha ..	Bagang ..	13½	452½
35	Bagang ..	Pangdha ..	13½	466½
36	Pangdha ..	Monpho ..	15½	482

ROUTE No. 2—*contd.*

37	Monpho	..	Chiamdo	..	17½	499½	On the left bank of the Chiamdo Chu.
38	Chiamdo	..	Lungdha	..	20	519½	Has a tax office and
39	Lungdha	..	Lagang	..	20	539½	garrison, with a
40	Lagang	..	Nulda	..	17½	557½	military official.
41	Nulda	..	Marl..	..	20	577½	Chiamdo is sur rounded by a mud wall.
42	Marl	..	Shang-ye Jam		17½	595½	On left bank of the Giana Nu Chu.
43	Shang-ye-Jam		Lho Jong	..	26½	62½	Comprises a fort, where 2 Jongpons reside, a gumpa, a giachug, and 150 houses. It is on the left bank of a small stream.
44	Lho Jung	..	Jithog Gumpa		19½	641½	The road follows up the stream on which Lho Jong is situated, to Chukpodisa (2 miles) where it crosses a stream from the west by a wooden bridge, 15 paces long. The road follows this stream and 2 miles further on, after a slight ascent over a pass (12½ miles), enters the Jithog district. From the pass the road descends along a stream to Jithog Gumpa, near which are 200 houses and stage house. Road smooth and level. See Route No. 56.
45	Jithog Gumpa		Shiobado	..	15½	657½	After following the stream for 12 miles further, and passing several small villages and two gompas, the road crosses it a little above its confluence with another from the west by a wooden bridge, 25 paces long. The route crosses this latter stream by another wooden bridge, 25 paces long, and then follows it up stream for 3½ miles to Shiobado, consisting of 200 houses, a small bazar, a gumpa and a stage house. Elevation 12,470 feet.
46	Shiobado	..	Bari Giachug	..	22½	679½	The road at 9 miles crosses a pass by a steep ascent into the Pemba district and then descends a mile to a gumpa. It then follows a stream for 3½ miles to a camping-ground where grass and firewood are abundant (13½ miles). Thence a gradual rise of 5 miles to the west is followed by a steep ascent of 3½ miles to a pass and a descent of 3½ miles to a stream (12 paces wide); on the left bank is Bari Giachug. Road good.
47	Bari Giachug	..	Lhache Gumpa		22½	702	The road follows the stream for 2 miles and then ascends for 2½ miles to a pass. Half a mile below the pass on the east there is an encamping-ground with grass

ROUTE No. 2—*contd.*

and firewood in abundance. From the pass the road descends $3\frac{1}{2}$ miles to a stream which it follows to Lhache, crossing it by a wooden bridge, 25 paces long at $20\frac{1}{2}$ miles. Lhache comprises 10 houses, a giachug, and a gampa. Road good.

48	Lhache ..	Pemba Gampa.	12	714 $\frac{1}{2}$	The road proceeds up a stream from the south-west for $1\frac{3}{4}$ miles, which it then crosses by a
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wooden bridge 25 paces long. It next, after a steep ascent, crosses a pass, at $3\frac{1}{2}$ miles, whence a descent of 1 mile leads to a stream which it follows to Pemba Gampa, where there are some 100 houses, a giachug and some cultivation. Road level.

49	Pemba Gampa	Urgentamdha.	15 $\frac{1}{2}$	729 $\frac{1}{2}$	Proceeding down stream, the road crosses it by a wooden bridge, 40 paces long at $3\frac{1}{2}$ miles.
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At 4 and $6\frac{1}{2}$ miles the road crosses streams from the south and at $10\frac{3}{4}$ miles passes Chiakro Gomp, $1\frac{1}{2}$ miles beyond which the stream turns north-east. The road continues west, and after a mile crosses a stream which rises from the Shiar Gang La and flows into the before mentioned stream, 1 mile east of Bargo Gampa. The road follows the Shiar Gang La stream up for 2 miles to Urgentamdha where there are 15 houses and a small "lhakhang." Grass and firewood procurable. Path level.

50	Urgentamdha..	Namgialgon ..	17 $\frac{1}{2}$	747 $\frac{1}{2}$	At $6\frac{1}{2}$ miles the road crosses the Shiar Gang La by a steep ascent and enters the Arig
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district. The road descends for $4\frac{1}{2}$ miles along a stream which it crosses about its confluence with another from the north-west.

Continuing along the stream a wooden bridge, 15 paces long, spans a small stream from the north-west at $16\frac{1}{2}$ miles. After twice crossing the stream by wooden bridges, each about 25 paces long, the road $1\frac{1}{2}$ miles further on reaches Namgialgon Giachug where there are 4 houses and a small gampa

51	Namgialgon ..	Nuldokar ..	9	756 $\frac{1}{2}$	The road follows the stream which after $5\frac{1}{2}$ miles falls into a larger one near a gampa. $\frac{3}{4}$
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mile further on there is a small lake on the right. Grass and firewood abundant, and the land cultivated.

52	Nuldokar ..	Alado ..	10	766 $\frac{1}{2}$	Proceeding along the stream $1\frac{1}{2}$ miles to Arig Gampa (12,480 feet) and 20 houses.
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The road fords small streams at $1\frac{1}{2}$ and $2\frac{1}{2}$ miles, and at 3 miles reaches Ji village. It crosses other streams at $5\frac{1}{2}$ and $6\frac{1}{2}$ miles, and in the last $3\frac{1}{2}$ miles twice crosses the stream which it is following, by wooden bridges, 65 paces long. Alado Giachug has 7 houses and a stage house.

ROUTE No. 2—*contd.*

53	Alado	..	Alagak	..	8	774½	Soon after starting, the road crosses a large stream from the Nub Gang La which unites
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with the one previously followed and under the name of the Daksong Chu falls into the Tsangpo, about 20 miles above Gyala Sindong. 7½ miles up the Nub Gang La stream is Alagak Giachug with two houses. Grass and firewood abundant.

54	Alagak	..	Alachiago	..	7½	781½	The road follows the bank of the stream to Alachiago Giachug and 5 houses.
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55	Alachiago	..	Aladochug	..	17	798½	As before: at 10 miles a wooden bridge crosses a tributary stream. A giachug and 6
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houses. Firewood scarce; grass abundant.

56	Aladochug	..	Chachukha	..	15½	814½	After 4 miles along the stream and up a steep ascent, the road gains the summit of
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the Nub Gang La (17,940 feet) which is the boundary between the Arig and Lharugo districts. A descent of 1½ miles leads to a small lake whence a stream issues which after 2 miles flows through a second small lake. The road follows this stream down to Chachukha Giachug with 5 houses and some scattered tents. Grass and firewood procurable.

57	Chachukha	..	Lharugo	..	15½	830	The road leads down stream for 8½ miles and then rises slightly over a spur whence
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it follows a stream to its junction with the first mentioned stream (15½ miles). The road then crosses to the right bank by a bridge, 25 paces long, and ½ mile further on reaches Lharugo Giachug where there are 60 houses and a gompā. From here a road branches off to Lhasa *via* Dugong Gompā. Grass and firewood scarce. Elevation 13,690 feet.

58	Lharugo	..	Archa Giachug.		11	841	Turning southwards, the road, soon after starting, fords a stream from the north-
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west, 50 paces wide and 2½ feet deep: it then follows a tributary up a steep ascent to the Archa La (8 miles). Then a descent of 3 miles leads to Archa Giachug, 12 houses and a gompā.

59	Archa	..	Gole Giachug.		19½	860½	At ¾ mile a bridge, 24 paces long, crosses a stream which the road follows up for 3¾
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miles to the eastern end of a lake, the Archa Tso, 4 miles long and 1½ broad,

ROUTE No. 2—*contd.*

which is fed by three streams from the south and one from the north-west. The road follows the southern margin for $3\frac{1}{2}$ miles and ascends the third tributary for another $5\frac{1}{2}$ miles. It then fords the stream (20 paces wide and 2 feet deep) and continues up a tributary from the south to Gole Giachug and 3 houses. Grass abundant; firewood scarce.

60	Gole Giachug ..	Donthog ..	10 $\frac{1}{2}$	871	The road follows the stream and then leads up a steep ascent to the Tola La (17,350
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feet) which is the boundary between Lharugo and Kangbo. It then descends for $7\frac{1}{2}$ miles along a stream, rising in the pass, to Donthog Giachug. The country between Alagak Giachug (stage 53) and this place is uncultivated.

61	Donthog ..	Laru Giachug ..	13 $\frac{1}{2}$	884 $\frac{1}{2}$	The road continues down stream, passes a gomp and 20 houses with some cultivation round
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them ($6\frac{3}{4}$ miles) to Laru Giachug. 25 houses, and a gomp.

62	Laru Giachug	Giamdo ..	16	900 $\frac{1}{2}$	After following the stream for 16 miles, the road crosses it by a bridge, 70 paces long,
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to Giamdo, situated above its confluence with one from the west. The joint stream flows east and is called the Kongbo Giamdo Chu. The town consists of about 100 houses with a main street, lined by 200 Tibetan, Chinese and Nepalese shops running through it. There is a mint here for coining Tibetan money. Wheat, barley and other coarse grains are raised in the vicinity. See Route No. 53, stage 1.

63	Giamda ..	Gam Giachug ..	14 $\frac{1}{2}$	915	The road proceeds up the stream from the west, passing a hamlet <i>en route</i> , to Sangsar
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Gompa ($8\frac{1}{2}$ miles). At $8\frac{3}{4}$ miles the road crosses the stream by a wooden bridge 50 paces long and follows the right bank to Gam Giachug with 10 houses.

64	Gam ..	Nimaring ..	23	938	The road continues up the right bank for $18\frac{1}{2}$ miles when it crosses the stream (which here
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flows from the south) near its junction with another from the west. Nimaring Giachug is $4\frac{1}{2}$ miles up the latter.

65	Nimaring ..	Chomorawa ..	20 $\frac{1}{2}$	958	The road continuing up the stream reaches the Gia La after a steep ascent (11 miles). This
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pass is not only the south-west boundary for the Kongbo district, but also the boundary between U-Tsang and Kham. From the pass the road descends along a stream to Chomorawa Giachug and 10 houses. See Route No. 55.

ROUTE No. 2—*contd.*

66	Chomorawa ..	Oise Giachug ..	..	..	The road follows the left bank of the Kyi Chu to Thakpo Gompa, where it crosses
to the left bank and so on to Oise Giachug.					
67	Oise ..	Rinchenling ..	..	..	Continue up the left bank of the Kyi Chu to Rinchenling Gompa.
68	Rinchenling ..	Medu Kongkar ..	..	..	Follow the road along the left bank of the Kyi Chu.
69	Medu Kongkar ..	Dhejen Jong ..	..	986½	After a short distance cross to the right bank of the Kyi Chu and proceed to Dhejen
Jong along that river, passing the villages of Chamada, Phameu Gompa and Taksi Jong <i>en route</i> . There is a large fort on high ground outside the town which comprises 500 houses and a gompa of 300 lamas.					
70	Dhejen Jong ..	Lhasa ..	14	1,000½	The road lies along the left bank of the Kyi Chu passing several villages <i>en route</i> . The
river is recrossed at Lhasa.					

For a description of Lhasa, see Route No. 1, stage 36, also military report.

71	Lhasa ..	To-lung ..	6	1006½	} See Route No. 1, stages 36 to 19.
72	To-lung ..	Ne-tang ..	7½	1013½	
73	Ne-tang ..	Jang-to ..	6½	1020½	
74	Jang-to ..	Chushul ..	11½	1031½	
75	Chushul ..	Chaksam ..	3	1034½	
76	Chaksam ..	Kampa-par-tse ..	8	1042½	
77	Kampa-partse ..	Demalung ..	8	1050½	
78	Demalung ..	Pede Jong ..	11	1061½	
79	Pede Jong ..	Yasi ..	5½	1067½	
80	Yasi ..	Nang-kar-tse ..	11	1078½	
81	Nang-kar-tse ..	Dza-ra ..	14	1092½	
82	Dza-ra ..	Karo la ..	6	1098½	
83	Karo la ..	Ra-lung ..	10	1108½	
84	Ra-lung ..	Shu-to ..	8½	1166½	
85	Shu-to ..	Gob-shi ..	7	1123½	
86	Gob-sh ..	Khotang ..	7	1130½	
87	Khotang ..	Gyantse ..	1	1141½	

ROUTE No. 2—*contd.*

88	Gyantse	..	Dong-tse	..	12	1159½	Starting from the chief monastery of Gyantse, 13,100 feet, the road skirts the outlying
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houses to the west of the town, and passing a few scattered villages to the north, leads out into the open valley. During the first portion of the journey the road lies in the centre of the plain and between fields of peas and barley.

About 2½ miles from the Gyantse monastery the Nyang Chu is crossed by means of a substantially built bridge with 8 stone piers, with a roadway which rests on stout timbers about 16 feet wide: the approaches are straight and easy, and the bridge of sufficient strength to bear field guns fully horsed.

The so-called road is in reality a collection of narrow tracks, now runs within half a mile of the hills which border the valley to the west.

At 6½ miles from Gyantse the village of Pesa is passed. This village is substantially built of stone, but is incapable of offering any resistance to mountain guns.

Another 5½ miles and the village of Dong-tse is reached. Transport and supplies procurable. Camping-ground east of Dong-tse. Elevation 13,000 feet.

89	Dong-tse	..	Nu-pu-chon dzo	14½	1,168	After leaving Dong-tse the roads winds round spurs and between fields. It still consists
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of a collection of sheep tracks, which nearly vanish when they cross stony ground.

Over the plain numerous whitewashed hamlets may be seen in all direction; the surrounding ground is quite flat.

Wood and water are plentiful.

In the numerous *nalas* bordering the main valley are many monasteries, all of small size.

Fourteen and a half miles from Dong-tse the scattered village of Nu-pu-chon-dzo is reached. This village is completely commanded by a spur lying close behind it. From here a good road runs southward to Dro-jung *Jong*, and from there to Khamba *Jong*.

Transport and supplies procurable; camping-ground in village. Elevation 12,700 feet.

90	Nu-puchon-dzo	Jorkyc	..	14½	1,182½	Leaving Nu-pu-chon-dzo the road narrows and at times consists of only a single track, but there
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are no obstacles to impede the usual rate of marching. The Nyang Chu is fordable almost anywhere along this march during the winter months.

At 7¾ miles from Nu-pu-chon-dzo, a great rock, upon which stands Pen-nang *Jong*, rises out of the plain. The bridge which formerly spanned the Nyang Chu opposite Pen-nang *Jong* no longer exists, having been swept away some years ago.

ROUTE No. 2—*contd.*

At 9 $\frac{1}{2}$ miles, 5 miles before reaching Jor-kye, the valley widens considerably, a great arm stretching to the north-east. Here, in a conspicuous position, rises the Ga-dong *Gompa*. Beyond it the valley is enclosed by low hills, over which an easy road is said to run into the Tsang Po valley. Everywhere lie hamlets, some of them almost big enough to be called villages, surrounded by trees. The whole valley is well irrigated and cultivated. The number of people passed during the march probably exceeded 5,000. Donkeys to the number of 100, 30 ponies and mules, and a few sheep were grazing in the fields. Peas, wheat and barley are the principal cereals grown.

Jor-kye is reached at 14 $\frac{1}{2}$ miles, and consists of a large private house with an excellent camping-ground of one acre surrounded by trees attached to it.

Transport procurable—10 Tibetan ponies. Supplies—grass, grain and *suttoo* in small quantities. Elevation 12,600 feet.

91	Jorkye	..	Shigatse	..	16	1,198 $\frac{1}{2}$	The valley after leaving Jor-kye is still wide and fertile as before, but the villages are rather more scattered. Paths run in all directions, and sluggish irrigation canals divide the land into blocks of cultivation. These canals vary in width and depth, and at times would seriously impede battery or baggage mules.
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The houses appear to be full to overflowing with stores of grain and *bhoosa*. Donkeys in great numbers and a few cows were seen grazing in the fields. The houses are all substantially built of mud-bricks and stones, and could be held for a considerable time against infantry unsupported by artillery.

Four miles off the road to the west is the important *gompa* of Shalu, almost hidden amongst a luxuriant growth of trees.

Shigatse is approached at the 16th mile: transport and supplies procurable, good camping-ground. Elevation 12,570 feet.

See Routes Nos. 24, 28 and 29.

92	Shigatse	..	Kang-jen Gompa	22	1220 $\frac{1}{2}$	The road from Shigatse consists of numerous distinct tracks. The whole way it leads over an open grassy plain, bounded on the north and south by high ranges. At one place, however, it crosses the foot-hills of the mountains, which lie to the north. Several groups of three or four houses are passed, but, with the exception of the village and monastery of Netang no village is seen. This monastery is bounded by walls of mud brick 18 feet high.
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The pass (13,200 feet) which is crossed 3 miles short of Kang-jen *Gompa* and 19 miles from Shigatse, is known as the Tra La, and has the easiest of gradients on both sides.

Kang-jen *Gompa* consists of a few large buildings in poor repair. No cultivation near by. The hills to the north are rocky and bare. A well-timbered camping-ground with plenty of water lies to the south. Elevation 12,900 feet.

ROUTE No. 2—*contd.*

Transport procurable, about 30 Tibetan ponies. Supplies—grass, grain, *suttoo*, eggs, sheep, and fuel.

93	Kang-jen Gompa	Shap-ge-ding	15	1,235½	The road, after leaving Kang-jen Gompa, is decidedly good. It lies along the centre of the valley up to the 11th mile, where a spur from the north runs down to it. Just beyond this spur, a river running from the valley on the south has to be forded. In the middle of October 1904, its width was 100 feet and its depth 2½ feet. The natives report that it can be forded at all seasons of the year at this spot, and that other more difficult fords exist. The natives also report that about here there is a ferry boat which is capable of carrying 12 ponies with their loads.
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No bridges now span the river, though the piers of an old one, opposite the village of Shap-ge-ding, are still standing. Elevation 13,000 feet.

In all the side valleys passed during this march are single houses surrounded by trees, but there are few villages.

Above and to the west of Shap-ge-ding, perched high up on the summit of a precipitous spur, stands a red *gumpa* occupied by five monks.

Along the road large numbers of yak, donkeys, cows and sheep were seen.

The ground is fairly well cultivated, whilst the grazing on the hills near by is excellent. Water, wood, grain and grass are plentiful. Transport and supplies procurable in small quantities.

94	Shap-ge-ding	Tra-shi-gang. . .	16	1,251½	Leaving Shap-ge-ding the track, which now becomes narrower, runs along the north side of the valley in a westerly direction until the post house of Zilung is reached. Here it leaves the main valley and enters an arid ravine. The upper end of this ravine is so narrow that baggage animals can only move in single file. Once through this defile a sandy valley is entered, which leads straight down to an open stony plain on the northern side of which several villages lie dotted about.
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The amount of ground cultivated appears to be too small to provide for the requirements of the population: nevertheless large quantities of grain and *bhoosa* are stored in the different houses.

Down the centre of the valley runs a clear stream which at this time of the year, October 26th, was 50 feet broad and 9 inches deep.

At the 16th mile from Shap-ge-ding lies Tra-shi-gang, a small village with a walled garden, 100 yards by 50 yards, containing a summer house and some trees. Elevation 13,000 feet.

Transport procurable—about 50 Tibetan ponies. Supplies—grass, grain, *suttoo*, eggs, sheep and fuel.

95	Tra-shi-gang . .	Piu-dzo-ling	13	1,264½	Throughout the stage the road is rough and stony, and runs for the last 11 miles along the right bank of the Brahmaputra. The path itself runs over endless heaps of debris, extremely tiring to man and beast.
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ROUTE No. 2—*contd.*

At the point where the path first meets the Tsang Po or Brahmaputra, 3 miles from Tra-shi-gang and 10 from Pin-dzo-ling, there is an iron suspension bridge, consisting of two parallel chains from which is hung a net of rope along which passengers have to walk. The chains are each 95 yards in length and are made of locally forged $\frac{3}{4}$ inch iron links from 9 to 11 inches long. On the right bank of the river the chain is made fast round a prominent rock, while on the left bank it is buried deep in the ground. The bridge is in good condition though of great age having been constructed before the memory of the present inhabitants.

At $10\frac{3}{4}$ miles, *i.e.*, $2\frac{1}{4}$ miles from Pin-dzo-ling, the path passes round a rocky spur and through a strong stone doorway. Above this doorway there is a strong defensible wall which runs for 50 yards up the hillside. One hundred feet above, the cliff can be scaled, but only with difficulty.

Opposite the monastery of Pin-dzo-ling, and spanning the Brahmaputra, is another chain bridge similar in all respects to the first, excepting that the chains have a length of 200 feet.

Pin-dzo-ling is reached at the 13th mile. Transport and supplies procurable. To the west lies a 30-acre camping-ground, well-wooded and watered, and with good grazing. Elevation 13,400 feet.

96	Pin-dzo-ling ..	Chap-trang ..	17	1,281 $\frac{1}{2}$	Immediately after leaving Pin-dzo-ling the path skirts the foot of immense sand-dunes
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and then continues along the face of a cliff, from the solid rock of which it has been cut. The roadway is nowhere less than 5 feet in width, the cutting continuing for three-quarters of a mile: the going throughout is rough, generally over granite. Water is passed on the road.

Chap-trang is reached at the 17th mile. Transport and supplies are procurable in small quantities.

97	Chap-trang ..	Lhatse ..	13	1,294 $\frac{1}{2}$	Leaving Chap-trang, the path runs in a fairly straight line along the right bank of the Tsang Po or Brahmaputra river; going good. Round each spur the roadway has been cut out of the solid rock, and is 5 feet wide. The rock is of limestone and the going along these cuttings level and firm.
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The hills to the south of the road are considerably lower than those to the north, and most of the passes at the heads of the *na'as* are practicable.

Many of the valleys, including that of the Brahmaputra, are filled with sand, clouds of which rise when a strong wind blows.

Lhatse is reached at the 13th mile. Elevation 13,000 feet.

See Routes Nos. 24 and 72 for branch routes.

98	Lhatse ..	Seng-ge-lung	11 $\frac{1}{2}$	1,306 $\frac{1}{2}$	Proceeding by the usual trade route, the Tsang Po is crossed one mile below the Lhatse gong
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ROUTE No. 2—*contd.*

by means of a ferry. The road lies along the left bank of the river and as far as Cha-gar, distant 3 miles, is across a plain. Half a mile below Cha-gar there is an iron chain bridge spanning the Tsang Po, which has here a width of 70 yards. From Cha-gar onwards a branch of the Tsang Po is followed. After crossing a small pass the road again approaches the river bank and here the going is rough. At the 7th mile Gye-dri (see Gazetteer) Seng-ge-lung is reached. At $8\frac{1}{2}$ miles the road leaves the river, and at the 10th passes a small lake, not named, 100 yards square. Seng-ge-lung is reached in another $1\frac{1}{2}$ miles. Transport and supplies procurable in small quantities. Elevation 13,700 feet.

99	Seng-ge-lung	Ga-ne-o	..	14 $\frac{1}{2}$	1,320 $\frac{1}{2}$	Continuing for $3\frac{1}{2}$ miles up the valley in which Seng-ge-lung lies, and on the eastern side of
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which there is much brushwood, the important village of La-do is reached. The valley beyond gradually opens out, and a small lake, 200 yards square, is passed. At the 9th mile is another lake, the Lang Tso, the northern shore of which is followed by the road. At $12\frac{1}{2}$ miles from Seng-ge-lung lies the village of Na-ma, and in another 2 miles Ga-ne-o is reached, lying half a mile off the road up a *nala* to the north-west. Elevation 14,600 feet.

Yak were seen in great numbers near the lakes, and flocks of sheep were numerous. The hillsides were covered with dense scrub jungle, but few good camping-grounds were seen.

100	Ga-ne-o	..	Ngap-ring Jong	10 $\frac{1}{2}$	1,331 $\frac{1}{2}$	Leaving Ga-ne-o, the path re-enters the main valley, and at the 2nd mile, at a place called
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Tra-ga-lung, there is good camping-ground. At $6\frac{1}{2}$ miles a low pass is crossed. Many villages are passed on the road, at most of which there are good camping-grounds, Ngap-ring being reached at $10\frac{1}{2}$ miles.

Transport and supplies procurable. Elevation 14,500 feet.

101	Ngap-ring Jong	Pa-ba-i-dzom		15 $\frac{1}{2}$	1,346 $\frac{1}{2}$	From Ngap-ring the road runs in a north-westerly direction and 2 miles out crosses a spur.
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Near here the path leaves Ngap-ring—so on the right, at 4 miles passing the village of Gyam-ga, and at $5\frac{1}{2}$ Ra-lung. Two miles beyond this latter place the valley narrows to a defile 100 yards in width, after passing through which an open valley is entered, and in another $8\frac{1}{2}$ miles Pa-ba-i-dzom is reached.

There are camping-grounds all along the road, where brushwood, water and grass are always obtainable.

No transport procurable. Supplies in small quantities only.

102	Pa-ba-i-dzom..	Pi-sha	..	9	1,355 $\frac{1}{2}$	For 3 miles the path continues along the main valley, after which it turns north
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ROUTE No. 2—contd.

up a side *nala*. At 5 miles the Pang La, with a steep ascent and descent, is crossed. Another 4 miles and Pi-sha is reached. A few supplies obtainable. Elevation 14,900 feet.

Except near the pass the valley is broad and open. There are many camping-grounds along the road, near which brushwood, grass and water can always be found.

103	Pi-sha	..	Sang-sang	..	12	1,367½	Leaving Pi-sha an open plain is traversed for the entire distance to Sang-sang
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except at the 6th mile, when crossing the Sang-sang-ka-la.

The going for the first few miles is good, but over the pass and in the plain beyond the ground is rough and broken.

Scrub grows on the hillsides, but in smaller quantities than along the earlier stages.

Transport procurable and a few supplies. Elevation 14,900 feet.

104	Sang-sang	..	Sha-ru	..	15	1,372½	Leaving Sang-sang the path traverses a rolling country, crossing on the way broad valleys, ridges and streams. The <i>gompa</i> of Shi-sum lies 1½ miles north of the road at the 12th mile. Three miles further on Sha-ru is reached. Elevation 15,000 feet.
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Many herds of yak and flocks of sheep were seen along the road: good camping-grounds everywhere, brushwood and grass being plentiful.

105	Sha-ru	..	Gya-tro	..	16	1,388½	After leaving Sha-ru the road is very bad, being both winding and rough. For the first 10 miles there is no ground on which a camp can be pitched. A stream of considerable size, though easily fordable, is then crossed. This stream flows into the Raka Tsang Po, which latter is met at the 11th mile and its bank followed 4 miles, after which a rough piece of ground is crossed and Gya-tro is reached. Elevation 15,000 feet.
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All along the road and at Gya-tro itself great numbers of yak and sheep were met. Supplies procurable in small quantities.

106	Gya-tro	..	Ru-jen	..	10	1,398½	For the first 7 miles after leaving Gya-tro the road crosses a plain, after which until Ru-jen is approached, 3 miles further on, it meanders along a valley.
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The going is good throughout. Transport procurable, yak in large numbers. Some supplies. Good camping-ground. Elevation 16,000 feet.

107	Ru-jen	..	Ra-ga-trak-sam	20	1,418½	From the camp at Ru-jen the road rises steeply until the Ru-jen La is crossed
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ROUTE No. 2—*contd.*

about 1,000 feet above the camp. From here the road, excepting at the 10th mile, half-way to Ra-ga-trak-sam, is nearly level.

At the 19th mile a small pass has to be crossed, on the western side of which the descent is steep.

The going throughout is good, but the ground on either side is much broken. Many good camping-grounds are passed. Elevation 15,800 feet.

108	Ra-ga-trak-sam	Kur-la-shar ..	17	1,435½	The road follows the foot of the hills which lie along the southern edge of a large plain about 3 miles wide. It then crosses the Kur La, 16,700 feet, one mile beyond which is Kur-la-shar (see Gazetteer, Se mo-ku). The descent from the pass on the western side is very steep.
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At Kur-la-shar there are no houses and only a few tents. Supplies—grain, a little grass, *sutton* and argols. Elevation 16,100 feet.

It is advisable to camp on the eastern side of the pass where there is plenty of room, the space at Kur-la-shar being very confined.

109	Kur-la-shar ..	Se-mo-ku ..	8	1,443½	The road, an excellent one the whole way, continues to descend until the bottom of the valley is reached, after which it runs direct to Se-mo-ku. Transport and supplies procurable, and limited camping-grounds are passed everywhere, brushwood, grass and water being plentiful. Elevation 14,800 feet.
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110	Se-mo-ku ..	Gya-tso ..	11	1,454½	The road continues down the valley, debouching finally into a large, sandy plain, leaving the village of Uk-shu on the right. At the western end of the plain the small fresh water lake of Gya-tso is seen, with excellent camping-grounds, lying all around. There is no accommodation and no transport, and fuel is not very plentiful. Elevation 14,600 feet.
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111	Gya Tso ..	Sa-ka Jong ..	17	1,571½	Leaving Gya Tso another valley is entered, the well-worn path being distinctly visible. The road ascends at first gently and then very sharply for 1,000 feet, continues along a spur, and finally drops into a great plain. This is traversed in a straight line as far as Sa-ka. Supplies and transport procurable. Elevation 15,180 feet. See Route No. 72 for branch routes.
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112	Sa-ka Jong ..	Sar-nu ..	15	1,586½	The path runs due west from Sa-ka, at first over an open plain, but gradually closing in towards the mountains on the north. At 9½ miles, the monastery of Tar-gyaling is passed, lying one mile to the north of the road. Here there is no cultivation. At 10 miles the Charta Tsang-po is crossed. During the winter months it is fordable with ease, but during the rains
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ROUTE No. 2—*contd.*

or at the time the melting of the snows it has to be forded 2 or 3 miles below the usual place. There are no bridges or boats on this tributary of the Tsang-po. Continuing west, a well-defined track leads up the valley which gradually closes in until the camping-ground of Sar-nu is approached. Elevation 15,000 feet.

The going on the whole is fair; the road being very level, but covered at times with loose stones. Good camping-grounds are found everywhere; water and grass are plentiful, but fuel scarce. A herd of 52 yak, laden with salt, was passed on the road, moving east.

113	Sar-nu	..	Nyak-ku	..	18	1,604½	Immediately on leaving camp the ascent of the La Lung is begun; both ascent
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and descent are easy. The road, however, is of the worst description, over loose boulders covered with sand, which at times give place to frozen streams and pools and tussocks of grass. One mile short of Nyak-ku the Men-chu Tsang Po is crossed. It is fordable anywhere and at any season of the year.

Transport and supplies are procurable in small quantities. Elevation 15,300 feet.

114	Nyak-ku	..	Lak-chang	..	16	1,620½	The path consists of a number of well-worn tracks, almost numerous enough to form a
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road. The going, however, is heavy, being through deep sand which, as often as not, hides loose rocks. The valley is open and rich in pasture. Streams run through all the lower lands. Lak-chang is reached at the 16th mile.

At the 8th mile there were many encampments of nomads with great herds of yak and sheep, also a few stone huts and sheep pens.

115	Lak-chang	..	Tra-dom	..	15	1,635½	The well-defined track crosses a large plain. The going is similar to that of the last two
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marches, i.e., deep sand and loose stones. The whole valley is filled with great sand dunes between which lie pools of fresh water which at this season of the year (October) are frozen solid. Tra-dom is reached at 15½ miles. Elevation 14,840 feet. Transport and supplies procurable. A southern route runs from here to Sa-ka (see Routes No. 72 and 20½).

116	Tra-dom	..	Dun-ju	..	15	1,650½	The path is clearly defined and for the first few miles keeps close to the hills on the
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north and then leads due west until the Brahmaputra is reached. The Che-chu Tsang Po which is crossed on the way is a small stream and nowhere exceeds 2 feet in depth. The going on the whole is good, but in places the sand is deep. After crossing the Brahmaputra the road leads over a plain and into a small sheltered valley, approaching Dun-ju at the 15th mile. Elevation 14,600 feet.

ROUTE No. 2—*contd.*

The plain crossed during this march is flat and sandy, good grass and brushwood grow on it and there are large numbers of yak and sheep. Many good camping-grounds in the valley. Transport and supplies procurable in small quantities.

117	Dun-ju	..	So	10	1,660½	A level and good road the whole way. During the first few miles it follows left
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bank of the Tsang Po, after which it leaves the river and enters a valley running from the north-north-west, approaching So at the 10th mile. Elevation 15,100 feet.

In the main valley of the Tsang Po four tents and many yak and sheep were seen.

Three herds of 25 yak each were passed on the road laden with *ghoor* and cloth, part of the taxes of Gartok on the way to Lhasa.

118	So	Gya Chu	..	20	1,680½	The going is on the whole good, though in parts sandy. Two low passes, 15,300 and
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15,600 feet in height, are crossed on the road, both of which are easy.

To the south lie immense sand-dunes which it would be impossible to cross, and amongst these dunes are pools of water. The grass which grows in abundance everywhere is rich: argols are plentiful, and streams and pools of fresh water are numerous. Two miles to the south, on a rock, are the remains of an old castle, and close by a new *gompa* containing three monks. On the road 70 yak, were passed, loaded with apricots, cloth and *ghoor* as tribute for Lhasa.

119	Gya Chu	..	Truk-sum	..	7½	1,688½	Keeping along the foot of the hills the numerous tracks lead straight to Truk-sum. Elevation
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15,080 feet.

Sand-dunes continue to be seen to the south, less numerous than along previous stages, but larger in size: there are also many pools of fresh water and channels of the Tsang Po. Several nomad tents were dotted about the plain and large numbers of yak and sheep were seen. The grazing is good, and water and argols plentiful.

120	Truk-sum	..	Neo	8½	1,696½	The path runs north-west across the plain until the bank of the Neo Chu, a tributary
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of the Tsang Po, is reached. This stream can be forced at all times of the year or, if the water is frozen, crossed on the ice. The track is but faintly marked. Neo is reached at 8½ miles. Elevation 15,000 feet. No transport procurable. Supplies—argols.

121	Neo	Nak-chak	..	18½	1,715	For the first few miles only a very faint track is to be seen, and baggage animals have
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ROUTE No. 2—*contd.*

some difficulty in making their way over the tussocks and mounds. During the rains the passages between these tussocks are filled with water. Towards the end of the march many parallel paths lead across the plain and approach Nak-chak. Here the going is good. Elevation 15,100 feet.

122	Nak-chak	..	Lak-tsang (Tram-sane).	14	1,729	The road to Lak-tsang is an excellent one, being straight, level and firm. The Tsang
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Po or Brahmaputra is fordable anywhere. It has a width of 95 feet, a depth of 1 foot, and a current of 2 miles an hour. Immense numbers of yak and goats were seen grazing in the plain. Transport and supplies procurable in small quantities. Elevation 15,200 feet.

123	Lak-tsang	..	Rajen	..	14	1,743	The road, which is straight and level, continues across the plain for some distance; then
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turns to the north up a narrow valley and over a low and easy pass to the camp of Rajen. In the dry season water can only be obtained from a small spring which rises in the centre of the valley. Grass and fuel are scarce. Four miles east-north-east of Rajen on a rocky spur are the remains of a large *gompa*, now deserted. Elevation 15,900 feet.

124	Rajen	..	Tse-sum	..	15½	1,758½	The road, which is good and clearly defined leads up the valley into the hills and along
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the bank of one of the tributaries of the Upper Tsang Po which is dry during the winter months. It enters Tse-sum at 15½ miles.

The above-mentioned hills are covered with a prickly shrub, the wood of which burns well. With this exception there is very little vegetation.

125	Tse-sum	..	Lu-lung	..	12½	1770½	A well-defined track upon which the going is good. For the first 7 miles, until the
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Ma-yum La (16,900 feet) is reached, there is a gradual ascent. The descent on the western side is slightly steeper. The road then runs between high limestone hills as far as the Gun-chu Tso plain. On the near edge of this plain and at the mouth of a valley is the camping-ground of Lu-lung. Transport and supplies procurable. Elevation 16,000 feet.

126	Lu-lung	..	Uk-rung	..	9	1,779½	The path crosses the plain, keeping about 2 miles from the northern shore of Gun-
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chu Tso. The going is fair, the ground being level, though covered with loose stones.

Grass and wood are plentiful, and during the summer many small streams flow into the lake. Elevation 16,300 feet.

ROUTE No. 2—*contd.*

127	Uk-rung	..	Nyuk-chu	..	12½	1,792½	The direction of the road is nearly due west over a plain, crossing an easy col
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just before reaching the camp at Nyuk-chu.
Loose stones cover the road and make the going bad. Elevation 15,600 feet.

128	Nyuk-chu	..	Tok-chen	..	22½	1,814½	The first 10 miles are over flat and firm country: the next eight over a stony spur where the going is very bad: and the last 4½ along the north bank of the Kiang-tsi-chu, where the going is again good. This river can be forded anywhere. Elevation 15,700 feet.
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129	Tok-chen	..	Le-gya	..	6	1,820½	An easy march to a spot 2 miles north of Lake Mansarowar (14,900 feet). A halt can be made at almost any spot in the plain, as rich grass grows everywhere; water is plentiful, and wood can be obtained from the hills to the north. Elevation 15,100 feet.
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130	Le-gya	..	Nak-luk-ro	..	9	1,829½	There is no defined track, but the going is excellent everywhere. The general direction of the march is towards the northern end of some low-lying hills west of Lake Mansarowar. Elevation 15,100 feet.
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131	Nak-luk-ro	..	Barkha (Pa-ga) ..	10	1,839½	After a short march over an excellent road, the important <i>Tasam</i> of Barkha is reached. Elevation 15,030 feet. From here a road runs between Rakas, Tal and Mansarowar lakes to Pu-rang; distant two long marches.
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Parkha is a village of about 30 inhabitants. One hundred maunds of grain are always stored here, in addition to which such luxuries as tea and *ghoor* can be purchased. Water, grass and fuel are plentiful. About 60 ponies also yak are procurable for transport. See Route No. 18.

132	Barkha	..	Shar-la	..	18½	1,858½	A long and monotonous march over a plain and past Kailas peak to the camping-ground of Shar-la. Grass is scarce along the road, and neither water nor fuel are obtainable. As the camping-ground is quite hidden, lying 1½ miles to the north of the road in a sheltered dip, travellers are liable to pass it by mistake. Elevation 15,900 feet.
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Water, grass and a few argols are obtainable. No transport. Supplies—sheep.

ROUTE No. 2—*contd.*

133	Shar-la ..	Trok-po-shar.. 15,300 feet.	13	1,871½	The road crosses a rolling plain, the going being on the whole good, though in places stony. Grass grows in abundance, but during the winter months no water is to be found along this stage. Grass, sheep and fuel are obtainable at Trok-po-shar. There is excellent camping-ground in a ravine through which a fair-sized stream runs.
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134	Trok-po-shar..	Misar (Men-ze) 14,300 feet.	9½	1,880½	Within 300 yards of the Trok-po-shar <i>na'a</i> is another very similar to it. For the next 4½ miles the tracks, which are very faint, lead over a stony maidan and then into a valley running south. On the bank of a stream at the mouth of this valley lies the <i>Tasam</i> of Misar. The population is about 50 and the <i>Tasam</i> contains all ordinary necessities. Yak and a few Tibetan ponies are obtainable as transport. Grass, grain, sheep and wood are obtainable. See Route Nos. 15 and 73.
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135	Misar ..	Gyala-bum ..	15	1,895½	A continuous but easy rise the whole way. The track crosses many ravines, in all of which are water and grass. The lower hills are covered with scrub, but the higher ones are quite bare of vegetation. The road is a rough one. No transport or supplies are procurable.
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136	Gyala-bum ..	Par-chu 15,100 feet.	13	1,908½	Two miles from the camp at Gyala-bum, the road descends gently into the Indus valley, and then crosses the Jerka La, 16,200 feet, a pass with extremely easy approaches from either side. At 4 miles several fresh water pools are passed on the left of the road, and the path then crosses many ravines and low spurs, in the former of which grass and water are both obtainable. The mountains on both sides of the road are bare and barren, but the low-lying ground between is covered with scrub.
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137	Par-chu ..	Nik-yu ..	13	1,921½	The path passes over an absolutely barren country cut up by ravines and spurs, one of the latter being almost worthy of the name of a pass.
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Nik-yu is a *Tasam* consisting of two mud-brick huts, one containing three rooms and the other one. Transport procurable; yak and a few Tibetan ponies. Supplies, about 20 maunds of grain, wood, argols, grass and sheep.

138	Nik-yu ..	Gartok, 15,100 ft.	6½	1,928½	The track leads for the first 1½ miles down the valley until Gartok plain is reached. From here Gartok itself is visible and the path leads straight to it. The
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ROUTE No. 2—*contd.*

going is level and firm. Gartok is the capital of western Tibet, for a description, see Route No. 5, stage 32.

139	Gartok	..	Nimalung	..	9	1,937½	One path leads along the right bank of the Gartanchu for about 8 miles when the river
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has to be forded. An alternative and longer route crosses the valley near Gartok and proceeds along the left bank, camp anywhere south of a ridge which runs across the valley; beyond (north of) this ridge there is no ground for a camp before Namru.

140	Nimalung	..	Leuchhe	..	15	1,952½	The path keeps to the left bank, ascends the ridge and descends to Namru where the stage
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may be broken. Namru has a staging hut, a few black tents and some fields. It is 8 miles from Nimalung. If the whole journey is done in two marches Namru is the intermediate stage. From Namru the path keeps level and gradually joins the river at a grassy flat expanse where camp is pitched.

141	Leuchhe	..	Gargunsa	..	10	1,962½	The river turns eastward while the path leaves it and proceeds direct to Gargunsa.
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The last 3 miles are over bad swampy ground.

Gargunsa is the winter capital of the province of Nari Korsum; it lies in a swamp, the buildings being somewhat raised on refuse heaps. It consists of the houses of the two Garpons, a Buddhist chapel, and a few hovels and black tents. There is no dry camping-ground; a few stony plots, a foot or two above water level are the only sites for tents. There is dry ground 1½ to 2 miles westward and fairly dry ground eastwards on the river bank.

From Gargunsa it is three easy marches to Tashigong down the valley of the Indus on the left bank.

142	Gargunsa	..	Ju	..	8½	1,970½	Along the left bank of the Gartung-chu.
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143	Ju	..	Lajunchumik	..	9½	1,980½	As above.
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144	Lajunchumik	..	Tashigong	..	8½	1,989	Along the left bank of the Indus, which is here from 100 to 200 paces broad and from
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4 to 6 feet deep to Tashigong. For a description of Tashigong, see Route No. 54, stage 9.

ROUTE No. 2—*contd.*

145	Tashi-gong	..	Temjo	..	..	..
146	Tem-jo	..	Tri To	..	..	..
147	Tri To	..	Pok Dze	..	..	..
148	Pok Dze	..	Nu-gu-tse	..	..	..
149	Nu gu tse	..	Nima-mud 14,000 feet.	..	..	..	Two small villages on right bank of Indus. A little barley cultivated. Fuel and grass
plentiful. Indus fordable. Water chest-deep in autumn.							
150	Nima-mud	..	Mahiye, 13,800 feet.	12	..	..	Camping-ground right bank Indus, opposite junction of Puga stream. No wood or
grass. Cattle must swim river to pasture on left bank.							
151	Mahiye	..	Puga, 15,200 ft.	13	..	..	The first 2 miles are level, with hot springs occurring at intervals. Then level and swampy
for another mile; after which for 5 or 6 miles the road is gently sloping and gravelly for 3 miles the road goes up a rugged valley with masses of boulders. A stream, the Rulang-chu, has cut for itself a narrow channel 100 feet deep. The top of the Polakonka pass (10,300 feet) is nearly level and grassy for about a mile. Puga is a camping-ground right bank Puga stream; sulphur mines, borax fields, and hot springs near here; fuel plentiful; grass in patches.							
152	Puga	..	Camp	..	12	..	From this place a route leads south across the Nakpogoding pass to Tsomoriri lake.
153	Camp	..	Thugji, 14,900 ft.	14	..	..	Road good, though sandy in places. Thugji is a camping-ground on north bank of Tsokar
lake; fuel and grass plentiful; water from small streams. A few Photi camps generally here from which a few supplies and sheep are procurable.							

ROUTE No. 2—*concl'd.*

451	Thugji	..	Debring	..	14	..	Road good though sandy in places. Camping-ground south-east base of Tagalang La. No supplies at camp. Fuel plentiful; grass and water scarce.
155	Debring	..	Gya, 13,500 ft.	12-7	..	Stony and steep ascent to the top of the Tagalang La (18,042 feet), then down a very stony and steep descent to the Gya stream, along which the road goes to Gya. The road has been repaired of late years (1891). Gya is a village (40 houses) and monastery left bank of stream of that name; barley cultivation; rest-house and supply depôt.	
156	Gya	..	Upshi	..	15-4	..	Road follows down the Gya stream, crossing and re-crossing it. In parts stony but not difficult. Upshi is village on left bank of Indus.
157	Upshi	..	Marsalang, 12,200 ft.	8-7	..	Road good, down left bank of Indus; considerable cultivation; poplar and fruit-trees. Marsalang is a village on left bank of Indus; rest-house and supply depôt; camping-ground Attabagh near Atta; considerable plantations of willow and poplar; extensive cultivation, Indus crossed by wooden bridge leading to Chimre on right bank, where the Chang Chenmo route joins.	
158	Marsalang	..	Chishot, 10,500 ft.	12-6	..	Road good, down left bank of Indus. Chishot is a large village on left bank of Indus; camp in Gulab Bagh; extensive cultivation; poplar and willow trees.	
159	Chishot	..	Leh, 11,500 ft.	9-1	..	Cross Indus at 4 miles by wooden bridge. Road heavy between Leh and bridge. Leh is the capital of Ladakh; supplies and water abundant; cultivation and gardens at Leh.	

Route No. 3.

FROM SULTANPUR (KULU) TO RUDOK.

Authority and date.—Tibetan and Lahul traders.*Epitome.*

This route has been used by Lahul traders for generations, and by the Tibetans who come down to Patseo every year to trade salt and wool

ROUTE No. 3—*contd.*

As far as the Lachu Lung, the Deputy Commissioner, Kangra, and Joint Commissioner, Leh, could with very little difficulty arrange to feed a brigade. Beyond that the route is not well known. There is plenty of grazing in Lahul, ponies and mules keep in good condition without any grain although they are worked hard. There is also plenty of meat as there are between a lakh and a half and two lakhs of sheep which are run in the Wazin country. The route is uninhabited between Darcha and Lachu Lung. But supplies to Serchu could be arranged by the Deputy Commissioner, Kangra. Beyond that from Leh.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Sultanpur ..	Katrain ..	11½	11½	Rest-house, 4,832 feet. Naggar, the court of the Assistant Commissioner, is 2 miles east of this: coolie-hire from Naggar to Katrain is 3 annas.
2	Katrain ..	Manali ..	12	23½	Rest-house.
3	Manali ..	Rala ..	9	32½	Rest-house. No village near, supplies impossible to procure without notice.
4	Rala ..	Khoksar ..	9	41½	Cross the Rhotang pass; nearly 13,000 feet; no village near, supplies difficult to procure without notice. Cross the Chandra by wooden bridge. Rest-house, in Lahul, 11,000 feet.
5	Khoksar ..	Sisu ..	12	53½	Rest-house.
6	Sisu ..	Gondla ..	7	60½	Public Works Department rest-house.
7	Gondla ..	Kailang ..	10	70½	Rest-house, Post Office, Tahsil, Moravian Mission Station, supplies including wood and grass must be taken from Kailang for the rest of the journey towards Lingti.

ROUTE No. 3—*contd.*

8	Kallang	..	Kolang	..	10	80½	No rest-house.
9	Kolang	..	Darcha	..	7½	88	No rest-house.
10	Darcha	..	Zingzingbar	..	11½	99½	No rest-house.
11	Zingzingbar	..	Kinlung	..	12	111½	Cross Bara Lasha pass, 16,200 feet. Coolie-hire 6 annas. No rest-house.
12	Kinlung	..	Lingti or Serchu.		17	128½	Hard march, all the way over 15,000 feet, coolie-hire 6 annas on the boundary between
Lahul and Ladakh. Serchu and Lingti are really one and the same place. No rest-house.							
13	Serchu	..	Sumdo	..	15	143½	Cross Tsarap river from British territory into Kashmir.
14	Sumdo	..	Ganglasal	..	8½	152½	Cross Lahulung pass, 16,630 feet. Camp near summit of pass on Lahulside. Water fall.
15	Ganglasal	..	Kiangchu Tomba.		8½	160½	Kiangchu Tomba means "the water holes of the wild ass."
16	Kiangchu Tomba		Drausiru	..	½ hour	..	
17	Drausiru	..	Ngore	....	2½ hrs.	..	At this point leave the Leh-Kulu high road.
18	Ngore	..	Taksumpa	..	4 hrs.	..	Junction of three roads. Road from Leh joins in here. See Route No. 2.

ROUTE No. 3—*contd.*

19	Taksumpo	..	Nuruchan	..	1 hr.		
20	Nuruchan	..	Tsogar or Sokar	..	1½ hrs.	..	From Tsogar where salt is worked a road branches off to Leh <i>via</i> Pongke Naga and
Detring Ma, leaving Rukchen to the west.							
21	Tsogar	..	Pohlogonka	..	4 hrs.	..	Pohlo-gonka (not Konka) means round hill. See Route No. 2, stage 151.
22	Pohlogonka	..	Hankung	..	3 hrs.	..	
23	Hankung	..	Puga	..	1½ hrs.	..	Puga is 100 miles from Leh. Cross from Kashmir territory, road good. See Route No.
2, stage 151.							
24	Puga	..	Tsaka Sumdo	..	8	..	Camp 2 miles from river, march difficult.
25	Tsaka Sumdo	..	Baljar	..	8	..	Camp on bank of Indus.
26	Baljar	..	Langiu	..	12	..	On bank of Indus opposite to Nima Maj (Nima Mad on map). Here one can follow a
road (fording Indus) <i>via</i> Mareh to Chusol. See Route No. 2, stage 149.							
27	Langiu	..	Rongho	..	10	..	Camp left bank of Indus.
28	Rongho	..	Dongtchi	..	8	..	Junction of Rudok-Lahul and Hanle-Chusol (Shushal) roads. At Dongtchi the Indus is
crossed from the left bank to the right bank, sheep are unloaded and packs carried by trailers, crossing should be made before 10 A. M. From Rongo a road leads south to Hanle and north (right bank) to Chusol.							

ROUTE No. 3—*concl'd.*

29	Dongtchl	..	Ramma	..	10	..	At Ramma is a small hamlet.
30	Ramma	..	Lobhur	..	8	..	
31	Lobhur	..	Tsagyung	..	8	..	Short level march.
32	Tsagyung	..	Richen	..	10	..	Cross Richen La pass which is described as easy. Probably over range marked Sajum
(20,018) in the map.							
33	Richen	..	Tad ..	..	10	..	Good level road; no village.
34	Tad ..	..	Shindzong	..	10	..	Good level road at village.
35	Shindzong	..	Red	..	10	..	Good level road; no village.
36	Red	..	Shaldad	..	10	..	Good level road; no village.
37	Shaldad	..	Chulung	..	10	..	Good level road; a village at Chulu.
38	Chulung	..	Rudok	..	10	..	Good level road. See Route No. 79.

Route No. 4.

FROM LARI (SPITI BORDER) TO TASHI-GONG (ON THE INDUS).

Authority and date.—H. CALVERT, I.C.S., 1906.*Epitome.*

This route is the most direct route from British territory to Gartok and Rudok. It passes through the Chumurti country. It is useless for pack

ROUTE No. 4—*contd.*

animals, and unladen (riding) ponies could only be taken along with considerable difficulty. Water and fuel are generally plentiful. Grazing in Chumurti is excellent and sufficient for a few animals elsewhere. No supplies but sheep and goats obtainable. In Chumurti there are magnificent yaks worth Rs. 15 to Rs. 25 and a very few but good ponies. The cold in spring and autumn is intense owing to the great heights at which tents have to be pitched.

One hundred and one miles in 9 stages. The route is not recommended, except for a small party marching against time. It is presumed that the route through Spiti to Lari is known.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Lari	Sumdo	11	11	Bad rocky road to Hurling Khad, the boundary of British India and Tibet; path then ascends along the side of a precipitous hill till it is over 1,000 feet above Sumdo to which it descends over very bad ground. At Sumdo is the junction of the Parachu and Spiti rivers, and here is the Bashahr boundary. A path followed by all Bashahr traders leaves the Hindustan and Tibet road near Kanum Route 5, stage 16) and proceeding up the Spiti valley joins this route at Sumdo.
2	Sumdo	Churup	9	20	Path ascends from Sumdo over bad ground to a crest above Kurik, a hamlet of two houses, then proceeds along precipitous hillside to Churup. A fairly large village on both sides of the Parachu.
3	Churup	Manja	8	28	Narrow path fairly level to Jamba. Parachu crossed by a small cantilever. At Jamba is the junction of Sumkhil and Para river. The path proceeds up the left bank of the former, past considerable cultivation and one or two hamlets; level but stony. At Manja is a small village with cultivation. About 13,400 feet.
4	Manja	Samlakar	13	41	Three miles to Tuntun, the path crosses and recrosses the Sumkhil; it is easy and fairly level. The Sumkhil is easily forded and there are plank bridges. Beyond Tuntun the valley narrows and becomes more rocky and precipitous, but the path is nowhere very difficult. Camp at junction of <i>na'as</i> at 16,275 feet. Usually no habitation.

ROUTE No. 4—*contd.*

5	Samlakar	..	Larsar	..	10	51	The path ascends steeply up a <i>nala</i> over shale, and grows more difficult as the
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crest is reached. The Boapo La was registered as 19,400 feet high; it was clear of snow in September.

The descent is very bad; the first few yards are down a difficult and dangerous zigzagging staircase, which is followed by a steep drop of about a thousand feet along a rough stony ridge. Next comes a flat stretch of boulders where there is no path. The route turns to the right over very bad ground down a stony *nala* and then to the left to Larsar. The last 2 or 3 miles are fairly easy.

Larsar is one of the summer camps of the Chumurti people. It is about 16,200 feet. Water and fuel are plentiful.

This stage is one of the most difficult in Western Tibet, yet Bashahri traders regularly traverse it.

6	Larsar	..	Cragrachan	..	8	59	A narrow path leads up a stony hillside to the Tukum La (16,750 feet) and then proceeds
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over easy undulating ground to Chagrachan. The path from Ladakh (Hanle) joins this near Larsar.

Chagrachan is the head-quarters of the Chumurti district; it consists of the hut of the Ponbo and a few black tents. It is not far from Route No. 6, stages 3 and 4.

If possible the march should be extended two miles or so, so as to shorten the next march.

7	Cragrachan	..	Shoksum	..	16	75	The path leads up and down a series of <i>nalas</i> which become deeper and steeper as
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the journey proceeds. Shoksum is the place where the path strikes the branch of the Op *nala* which, running roughly parallel to the route, receives the various branch *nalas* which cross it.

The march can be broken at any of two or three *nalas* where there are grass, water, fuel and camping room. In these there are usually one or two black tents. If the day's journey be thus shortened, an extra day will be necessary as the other stages cannot be lengthened.

8	Shoksum	..	Rachok Naru..	..	18	92	An easy path leads past several camping-grounds; beyond Deboche fuel becomes
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scarce and ceases as the Bongru La is approached. The ascent of this pass is not difficult. Height about 18,600 feet. The descent is over bad and difficult ground of loose stones. Fuel commences at about 17,000 feet; water is plentiful but grass is scarce. No habitation.

ROUTE No. 4—*concl'd.*

9	Rachok Naru	Tashigong	..	9	101	The path gradually descends over bad stony grounds to the Indus valley which it joins
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west of Tashigong. See Route No. 2, stage 144.

Tashigong is a monastery and village on the left bank of the Indus about 14,350 feet. Fuel is sufficient, grass is apt to be over-grazed by flocks of sheep and goats. There are a few barley fields.

The monastery is a large building intended for 50 lamas. It was at one time fortified but the bastions are in ruins. The east end of the building is loopholed; the walls are thick but in want of repair. The west end is of weaker construction and contains the Lama's quarters.

Tashigong is close to the Ladakh border, and three marches from Gargunsa.

The monastery is subordinate to Toling.

Route No. 5.

FROM SIMLA TO GARTOK.

Authority and date.—Punjab-Bengal route book no. 611. Major Powell, R.E., 1907, H. Calvert, I.C.S., 1906, and Captain H. Rawling, 13th Light Infantry, 1904.

Epitome.

32 stages, 334 miles. General direction north-east by east then east. Fit for transport mules as far as 165 miles from Simla, barely passable for mules for 10 miles further and thence only passable by sheep, goats and lightly-laden donkeys and hill ponies to Shipki. Crosses the Sutlej at Wangtu by a suspension bridge fit for pack transport and Poo (mile 116) where there is a single cable and traveller and from November to April (inclusive) a light temporary bridge over which animals can be led. There is a similar cable and winter bridge over Shiaso Kad (mile 182). Other tributaries of the Sutlej are bridged by bridges in various states of repair; their condition varies as the timber is exposed to rot. Between Nirath and Wangtu (stages 6 to 11) there are occasional very steep gradients otherwise the road is very well graded as far as it has been made (mile 165). Supplies are scanty, the valley does not produce enough to support its inhabitants. Water plentiful. Forage fairly plentiful up to Rogi (mile 136), scanty to Jangi (mile 165), thence to the Tibetan frontier there is little or none. Camping-ground as far as Shipki at most stages only on cultivation. As far as Namgia (our frontier village mile 199) the route nowhere rises to 10,000 feet: between Namgia and Shipki the only path at present passable for animals crossed the La Kong Ma (or Shipki pass) nearly 16,000 feet. This pass is generally closed by snow from December to June. The remainder of the route up to Shipki is generally clear of snow early in April.

This route from Shipki to Gartok is the direct road but it can only be used by animal transport in late autumn and spring, when it is preferred to the

ROUTE No. 5—*contd.*

Chumurti route as it is less blocked by snow and the cold is less severe. Snow on the Shirang La pass causes the route to be closed to animals from the end of December (or earlier) to the middle or end of May. In summer the rise of the Sutlej closes the 21st stage to animal transport and the route is also liable to be closed by floods in the Mayang and Op stream in the 22nd and 26th stages. Passes crossed after Shipki are Shirang La 16,700 and Ayi La 18,700. The gradients frequently 1 in 3 are only suited to yaks, sheep and goats and are too severe for Indian transport animals fully loaded. This route was used by Captain Rawling's expedition in December 1904 in which year the snowfall was late. It is also for 28 stages the direct route to Chabrang, the head-quarters of the Dzonpong of the district. See route 9 st ge 15.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
1	Simla ..	Fagu, 8,200 ft.	12	12	From Simla church the road runs east along the north slope of Jakko to Sanjauli tunnel at 2½ miles. Toll bar 3½ miles. Charabra bazar 6 miles. Road runs along north slopes again past Kufri bazar (8 miles) to Fagu at 12 miles. Road to Toll bar 12 feet wide remainder 8' to 7'. Gradients easy. At Fagu small village dāk bungalow, post office. Camping-ground on fields. Water-supply. Road to Kotkhai leads down east.
2	Fagu ..	Theog, 7,500 ft.	5½	17½	Road descends alternately on south and north of watershed. Small village, dāk bungalow and post office. Camp in fields. Water scare.
3	Theog ..	Matiana, 8,000 ft.	11½	29	Road alternately on north and south of watershed. Through Lalpani cliffs (mile 23) and Madhan cli's (mile 25). An alternative path—mile 25 to 27—runs along south side of hill and is free from snow, but requires a little work to make it fit for mules. At Matiana small village, bungalow, post office, camp in fields, ample water-supply.
4	Matiana ..	Narkanda, 9,000 ft.	11	40	Through Nanni cliffs in 30th mile and Dalankil cliffs in 36th mile. Road good on south and east slopes. Narkanda has a small village and bazar. Camp on fields; water for 200 men, dāk bungalow and post office. At Naka Narkanda a road leads north to Komarsen at 7 miles and to Luri suspension bridge over the Sutlej at 14 miles. Descent of 6,400 feet.

ROUTE No. 5—*contd.*

5	Narkanda	..	Kotgarh (Thanadar) 7,900 ft.	..	10½	50½	Road leads east through fir and Dak forest and bends north after 1 mile. At Sidhpur fields,
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44 miles, the old line of the Hindustan-Tibet road through Bagi turns off east. At 49 miles the road divides, one path leading down to Kotgarh, 50½ miles, where there is a large village, mission station, post office and dāk bungalow and extensive cultivation. A steep path from Kotgarh 1½ miles rejoins the direct road at Thanadar, 50½ miles, where there is a village cultivation and Public Works Department rest-house.

6	Kotgarh	..	Nirth, 2,900 ft.	..	9½	60	Road ascends steadily for 7 miles by long zig-zags well graded, reaching Sutlej valley bottom at 57½ miles. Cross Bera stream by wooden bridge good order, and ascend Sutlej, 2 miles to Nirth. Small village, camp in fields. Road good in descent, but rocky and steep for short lengths in the valley.
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7 Nirth .. Rampur .. 12 72 Road ascends Sutlej not more than 200 feet above the river. At 61½ steep descent to Machada stream, wooden bridge, good order at 67½ miles. Nogli stream is crossed by a suspension bridge, 100 feet span. Good order. At 71½ reach Rampur town. At intervals along the road there are steep rocky ascents and descents generally short. If the road were to be used for Government mule transport these require rectifying. Rampur is the capital of Bushahr state, supplies are obtainable. Spring and autumn fairs are held; the latter the more important as all the Tibetan trade is then carried on. Punjabi mules ply in numbers between Simla and Rampur but above Rampur local transport consists of donkey, sheep and goats.

The town suffered greatly in the earthquakes of 1905 and 1906. Public Works Department rest-house 72½ miles. Rest-house on right bank in Kulu. Suspension bridge, 165 feet span, in good order at 71 miles and road to Kulu.

8	Rampur	..	Gaura, 6,400 ft.	..	7½	79½	Along open hillside to 74th mile then rise steeply to about 5,500 feet, descend easily through fields to cross the Pasada Gad, 76½ miles. Rise again very steeply to Balti Dhar, 6,200 feet, 77½ miles. Road fair to Brauni Gad, 78 miles, thence easy to Gaura. A realignment of this stage is to be undertaken.
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9	Gaura	..	Sarhan, 6,600 ft.	..	10½	90	Road level and good for 3 miles then descend 1,600 feet into Manglad Kad crossed at 85 miles by a timber girder bridge, span 60 feet. Timbers rotten in 1907. Rise very steeply by zig-zags about 1,600 feet to Deo thence along the old alignment, the road is level and good to Sarhan. (The present road from
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ROUTE No. 5—*contd.*

Narkanda *via* Sungri and Daranghati joins in at $84\frac{1}{2}$ miles.) Sarhan has a large village and extensive cultivation. Public Works Department rest-house and post office. The Raja of Bushahr has his residence here.

10	Sarhan	..	Taranda, 7,100 ft.	131	1031	The road runs level for 5 miles in many places through precipitous cliff. Then leaving
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the old alignment ascends and descends spurs by short but very steep gradients reaching top of Manoti spur at $96\frac{1}{2}$ miles. Descend steeply by zig-zags 300 feet, thence road fair to Chora forest bungalow ($98\frac{3}{4}$ miles) near which is forest path descending to Suttlej. Ascent to $100\frac{1}{4}$ miles, thence descend into Chaunda Gad, mile 102. In this descent there are some steep rocky stairs requiring realignment. Cantilever bridge, 36 feet, span good order. Thence rise 900 feet with some very steep gradients to the Taranda spur on the east side of which is the Public Works Department bungalow above the fields of the village. A coarse grass growing in this and the next stage is poisonous to horses.

11	Taranda	..	Wangtu, 5,200 ft.	121	116	The road is easy for $\frac{3}{4}$ mile, then descends to Saldang Gad about 800 feet with occasional
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very steep rocky slopes. At 106 miles there is a stone slide dangerous in rain. At 107 miles in valley bottom two bridges about 36 feet span. Ascent stony and steep to Paunda, $108\frac{1}{4}$ miles. Rest-house and village. Road good for next 5 miles to Nachar, 113 miles. Forest bungalow and post office.

Steep descent in next $2\frac{3}{4}$ miles to Pangar Gad, timber bridge in good order. Thence road good to Wangtu bridge, 116 miles, Public Works Department rest-house on left bank at bridge.

12	Wangtu	..	Urni	..	10	126	Cross the Suttlej by Wangtu suspension bridge, 140 feet span, iron lattice towards
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timber side girders. Two timber bridges, over Wangar Gad streams, mile $116\frac{1}{4}$. About 300 feet of timber gallery along the face of the cliff in the Wangtu gorge all above in good order in 1907. Road follows the valley to mile 122. In miles 118 and 119 liable to damage by avalanche snow. At 122 mile path leads on up valley and crosses by a cantilever bridge at Sholtu which is replaced by a light suspension bridge carrying a road to Kilba and the Baspa *nala* by which there is a route to Mussoorie. At mile 122 rise by zig-zag to 123, thence along open hillsides to Urni.

13	Urni	..	Rogi, 9,500 ft.	10	136	Road descends easily to the Eula (or Khatka) Gad, bridge at mile 127, 36 feet span.
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Thence steady rise of about 1,800 feet in the next six miles. At mile $131\frac{1}{4}$ two bridges on the Runang Gad streams are crossed, spans about 25 feet, both carried away by avalanches in 1907. Through Runang deodar

ROUTE No. 5—*contd.*

forest in mile 133. Through Messang cliffs in miles 134 and 135, the road rising to 9,700 feet.

14	Rogi	..	Pangi, B. 8,700 ft.	10	146	In first mile pass above Rogi village in mile 138; the road is taken along the sheer face
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of the Rogi and Chini cliffs; at 139 it turns north to an open cultivated, easy sloping hillside, reaching Chini at 139½ miles. (Tehsil, post office, forest bungalow.) Chini with the three villages has about 100 households. At 142 miles a path leads down south-east through Telingi to Poari where there is a wide cable across the Sutlej. Passing through forest of deodar and edible pine the descent is easy to the Khorang Gad, 144½ miles. Bridge 40 feet span, 3 trussed beams, good order in 1907. At mile 145 wooden bridge, 20 feet span, good order. Ascend through Pangi village to the bungalow and fields at 146 miles. The upper and lower villages together have about 80 households.

15	Pangi	..	Jangi, B. 8,835 ft.	15	161	Descend easily to Kashi Shang Gad, 149 miles. Timber bridge, 2 spans of 32 feet each. Rise
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about 1,000 feet in next 2 miles with zig-zags in mile 151. Between mile 147 and mile 154 the road runs along gneiss cliffs. At 155 pass above Rarang (50 households). The road runs level to mile 159 through masses of debris from cliffs above in mile 157, stones are liable to fall. At 156 miles pass above Aran where there is a cable over the Sutlej and at 157 pass above Akpa. At 159 miles turn north over the Thitri spur and through open deodar forest to Jangi at 161 miles. Jangi has about 50 households, supplies scanty, water and fuel abundant, and a little more grass than neighbouring stages. Road bungalow.

16	Jangi	..	Kanum, 9,100 ft.	11½	172½	Running level to mile 163 the road descends to the Kirang Kad which is crossed by
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a narrow cantilever bridge at 165½ miles. Last descent very steep. After mile 165 the path is at most 5 feet wide. The ascent for 600 feet from Kirang Kad is steep and rocky, laden mules could only pass with care after clearing the path of stones. After 1 mile of level path the route regains the main valley and there is about ¾ mile of rocky path difficult in places. Thence to mile 171 the path is level and easy though narrow. Passing through the fields under Labrang the path is very narrow and is cut by water courses. The descent to the Kanum stream, mile 171½, is generally in very bad order, but easily repaired. There is a narrow country bridge in good order, 1907. The path then follows the edge of the main water channel through the fields and the large village of Kanum at mile 172½.

17	Kanum	..	Shiaso Kad 7,900 ft.	8½	181	Transport animals cannot be taken over the path in this and the subsequent stages. Rising
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ROUTE No. 5—*contd.*

from the village the path passes in mile 174 through a great landslip where there is often little but a precarious track and then rises steeply to a height of 9,700 at 174 miles. After 2½ miles of good level path descend by very steep zig-zags to Charatatang where there is water and some cultivation. After a sharp rise another bad slip is crossed and then the path is fair to Guipil Dogri where there are sheep folds and water in spring time. In mile 179 there is a very steep rise with rock stairs and the path then descends to mile 180 where a spur is rounded and the descent to Shiaso Kad begins. The descent is about 700 feet by rock stairs and very steep zig-zags. The river-bed is about 200 feet to 250 feet wide and is crossed by a wire cable. In the winter months a temporary bridge of about 20 feet span is used and the stream is easily fordable. In May it becomes unfordable and is liable to sudden flood which fill the whole channel. Shiaso village is about 1½ miles up stream of the crossing and about 1,000 feet above the riverbed. It has 7 households. No supplies available nearer than Sunam, 5 miles up the valley.

18	Shiaso	..	Poo, 8,000 ft.	9	100	From the Shiaso Kad stream the path rises by steep zig-zags for about 1,600 feet to the
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crest of the spur forming the north side of the valley which is crossed at 183 miles. A steep path leads west from the zig-zags to Shiaso village. From this spur for 5 miles the path rises and falls through cliffs and steep places and in places it is only just possible to lead an unladen hill pony over it. The line is fit for coolies and goats and cannot be improved into a mule track without realignment throughout and as the hillside would require blasting for most of the length this would be an expensive and slow work. At Chalpur (185½ miles) there is water and at 187 miles the Tinku stream is crossed. Avalanche snow lies here till May. A steep rocky rise leads to the crest of a spur at mile 188 on the far side of which the descent is short but rocky. Thence to Poo stream for nearly 2 miles the path is easy over open hillsides. Passing under Labrang there is a steep descent and ascent to cross the stream and the path then passes about 300 feet below Poo village at 190 miles. Poo and Labrang have together about 65 households. Some supplies are obtainable. At Poo there is a post office and a Moravian Mission station.

An alternative route from Kanum to Poo is open in the summer time, the first march is from Kanum over the Runang La and the second Sunam to Poo by the Cove La. Each of these passes involve a rise and fall of about 5,000 feet. The paths are steep and crumbly, but free from cliffs and are passable by lightly laden yaks, ponies and donkeys. The passes are generally blocked by snow till late in May and some times till late in June.

19	Poo	..	Khab 9,400 ft.	9	198	Descending steeply through rocks the path leads to the broken bridge over the Sutlej,
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where there is now a cable. A wire suspension bridge is under construction and will be finished during 1910. In winter a temporary cantilever bridge of poplar poles (about 80 span) is thrown across. On the left bank

ROUTE No. 5—*contd.*

the path is fair, rising and falling steeply in crossing the Dabling stream it is bad. After passing below the village of Dabling and Dubling the Tidang stream at mile 195 is crossed by a rough timber bridge, apt to be washed away. Thence to Khab, mile 198, the path is rideable except for a few steep grades and rock stairs which could be easily improved. One mile beyond Khab (8 houses) the frontier village of Namgia is reached. Below Namgia (which has 15 households) there is a twig rope bridge leading to the monastery of Tashigang on the right bank of the Sutlej. Opposite the village of Khab the Spiti river joins the Sutlej in a precipitous gorge.

20	Khab	..	Shipki, feet.	10,400	12	210	The route for animals lies over the La Kongma pass (15,900 feet). Coolies take the route
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over the Pimig La, shorter but impassable for animals. From December to May the path through the Sutlej gorge is used, but this is only passable to men with light loads.

(A) *The La Kongma route.*—Rising from Khab or Namgia the path goes through Rizing Dogri and steadily ascends the open stony hillside for over 5,000 feet. The track is as steep as 1 in 3, crumbly and loose under foot, but there are few rocks and no cliffs. The climb is too severe for laden mules. At about 6 miles from Khab the ridge is reached at the Pashagang La, thence there is an easy but stony descent into a valley which forms the head of the Hopsang ravine, which is the frontier between the Bushahr state and Tibet. At the foot of the rise to the La Kongma there is a small camping-ground with water, good grazing and yak-dung fuel. The pass is reached at 7 miles from Khab. The descent is similar by a steep, stony, zigzag path, 5,300 feet to Shipki.

(B) *The Pimig La Route.*—Passing just above Namgia the path rises north-east over the stony hillside and reaches the cliffs of the Hopsang ravine at $3\frac{1}{2}$ miles from Khab. Into this it descends by a narrow cleft in the rock and becomes impracticable for animals, nor is a diversion possible unless the whole line is changed. On the Tibetan side the path is easier, but there are bad places at the Mansapan and Chupin ravines. The summit is reached at about $7\frac{1}{2}$ miles from Khab and Shipki at 10 miles, the descent of 3,000 feet being over the open hillside.

(C) The winter footpath crosses the Sutlej by the twig rope bridge, 800 feet below Namgia, and after steep rise and fall and considerable cliff climbing recrosses by a natural rock bridge about $4\frac{1}{2}$ miles further up. Working along the debris slopes at the foot of the cliffs and through the Sutlej gorge the path rises to Shipki. Distance to Khab about 11 miles.

In 1907 the earliest crossing of the Pimig La pass was in the first week in May, the pass was still snow covered and snow lay deep in the drifts. The La Kongma was then deep in snow. The valley route was free from snow and had been so for about two months.

Shipki has about 35 households scattered among the terraced fields which run up from the Sutlej for about 800 feet. The people are not unfriendly but are unreliable, and care is needed in dealing with them.

ROUTE No. 5—*contd.*

It is difficult to obtain supplies. Four miles from Shipki there is a shaky cantilever bridge over the Suttlej to cross which yak are generally unladen. The two routes to Gartok (distance 11 or 12 stages) lead over this bridge (see Route No. 6).

21	Shipki	..	Tyak, 10,200 ft.	10	220	Leaving Shipki the path descends to the Shipki Nala, fordable unbridged, and rises by steep stony zigzags to an open plateau at $\frac{1}{2}$ mile, and thence runs along hillsides above left bank of Suttlej. At $1\frac{1}{4}$ miles cross ravine, 200 feet deep, descent and ascent steep and rocky. At 2 miles Kiu village, 20 houses, considerable cultivation. Steep descent to Kiu village stream, thence along stony slopes to Rokti stream, crossed near its confluence with the Suttlej at $3\frac{3}{4}$ miles, unbridged, dangerous to ford after 7 A. M. in summer. At $4\frac{1}{4}$ miles cantilever bridge over the Suttlej about 100 feet span (9,900 feet). The bridge is of poplars and is springy and dangerous to any but country animals. Men and unladen animals cross the river and go by right bank but four rocky cliffs which run down into the water cause laden animals to keep to the left bank. Rising to about 800 feet above the river to avoid cliffs the path descends at $8\frac{3}{4}$ miles to ford the river by a good ford $2\frac{1}{2}$ feet deep passable up to the beginning of May. Cross the stony talus of the Tangmet stream at $9\frac{1}{2}$ miles and reach the cultivated fan and village of Tyak at 10 miles.
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22	Tyak	..	Mayang, 12,000 ft.	$8\frac{1}{4}$	228 $\frac{1}{4}$	Leaving the main Suttlej valley the route turns up the bed of the Mayang stream running north-east for $2\frac{1}{2}$ miles; the path is among the boulders of the river-bed. Here the valley trends east and is hemmed in in two places by precipitous cliffs where the summer floods close the route for a fortnight at a time. There is no chance of a diversion except from near Tyak, whence a very difficult goat track can be used. Ascending the bed of the river a few short and very steep gradients are met with and the stream is crossed repeatedly at $7\frac{1}{4}$ miles, the path rises to a stony plateau on the left bank and thence along steep slopes and debris cliffs to Mayang at $8\frac{3}{4}$ miles, the latter portion also being at present very bad.
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A path from the Drongmo La (Chumurti Route) through Teza Dogri comes in at Mayang; it is used by laden yak. Mayang has 13 households and about 150 acres cultivation. Yaks are obtainable.

23	Mayang	..	Ta-ul-tse, 15,400 ft.	$10\frac{1}{4}$	239 $\frac{1}{4}$	The path rises at once by zigzags from the village, 2,400 feet in 2 miles. For a great part of the way the track is rocky; it is throughout steep and difficult, unfit for mules and difficult to improve. Rounding a spur the path ascends an easy valley for 4 miles and then rises by zigzags steeply and by rocky ledges and steep grades reaches the Shirang La pass at $7\frac{1}{2}$ miles (16,500 feet). Descends
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ROUTE No. 5—*contd.*

on east side by steep zigzags, 700 feet into a ravine down the bed of which the track passes easily for half a mile, then rising round the angle of a limestone cliff descends very steeply for 100 feet and reaches open ground. The remainder of the march over a col is easy until Ta-ul-tse, a shepherd's camp, is reached. Water and grazing good; yak-dung fuel; cold severe.

Captain Rawling gives the name of the halting place as Chang-dang and the distance as 12 miles from Mayang.

24	Ta-ul-tse ..	Nu or Nuk, .. 13,900 feet.	8	247½	Over undulating hillsides south-south-east for 1½ miles. Then descends steeply 400 feet into
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Tsangri ravine and ascends by rocky zigzags. At 243 miles descends again 400 feet to Dum Sumi Sang where three ravines meet and the resulting *nala* descends to the Sutlej having in it a path to the Tinzam Sampa bridge whence routes lead to Garwal and Kanawar, very mountainous but used by country baggage animals. Ascending the easterly ravine rise easily to a col at 5½ miles. Descends 13,000 feet by zigzags, down the open hillside to Nu village, 7 households, good cultivation, no trees. Grain, grass and fuel are plentiful.

25	Nuk ..	Luk, 14,000' ..	10	257½	Nu lies in an amphitheatre bounded on the east by a sheer cliff on the crest of which
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is an ancient ruined fort. The path rises north-east up a steep spur to surmount the north end of the cliff. At 1½ miles the path turns east and at 2 miles reaches open undulating ground. Continuing to rise at 5½ miles the west edge of a plateau is reached and at 6 miles its east edge (15,400') from which the descent to Luk is about 1,400 feet, south-east, at first steeply then easily over open hillsides with stony surface.

Luk consists of two large double-storeyed houses and some huts in the southern part and a lamasery in the northern part with an old ruined castle in between. Supplies are small in quantity, but sufficient for local wants. Bhoosa, grain, sattoo, and wood are practically all that can be obtained. Sheep are plentiful and a few ponies and cows are seen on the hillsides. Transport procurable; yak and about 10 Tibetan ponies.

26	Luk ..	Op-chu, 11,600'	9	266½	For 6 miles the path is good and runs over rolling ground, rising gently the whole
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way. At this point, 13,800 feet in height, and 3 miles from the camping-ground of Op-chu the going becomes very bad, being through loose sand and between great boulders. In fact it is so bad that baggage animals must have their loads removed at one or two places. From here the drop to Op-chu is 2,200 feet. A torrent, which is difficult to cross in the rains, has to be forded just before reaching camp. The ascent from the stream below Op-chu to the summit takes laden animals travelling in the opposite direction 2½ hours.

ROUTE No. 5—*contd.*

A small and bad camping-ground; water is plentiful from a torrent near by. Fuel is scarce and grass non-existent. No transport or supplies procurable.

27	Op-chu	..	Kyi-ni-puk	..	15	281½	Immediately after leaving camp there is an almost sheer ascent for 2,500 feet,
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the path being narrow and crooked and composed of deep, loose sand almost impracticable for laden mules and ponies. It then improves, and after crossing over the pass drops gently for 6 miles to the main water-course. This crossed, a valley of rich grass is entered. Two miles up this valley is the camping-ground of Kyi-ni-puk. Camp, however, can be pitched almost anywhere in this valley, for fuel, grass and water are abundant. Transport procurable—yak and about 5 Tibetan ponies. Supplies—a few argols.

28	Kyi-ni-p	..	Ti-bu, 14,000'	..	15	296½	The route continues up the valley for another 2 miles and then turns up a barren
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ravine to the east. The going now becomes heavy and the path continues bad until Ti-bu is reached.

On the way many steep-sided ravines are crossed. Two of the larger contain grass, water and fuel, and afford good camping-grounds.

A straight road and a level one, with very good going, leads from here down a great ravine to Tö-ling, see Routes No. 12, 73 and 74.

Ti-bu is a small but good camping-ground situated in a hollow, above which are many dry caves used by travellers. No transport procurable. Supplies argols.

29	Ti-bu	..	Dunkar, 14,100'	..	6	302½	A short march across rolling hills. The path is a good one. The direct route from
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Gartok to Tö-ling passes through here. Dunkar is a village of about 50 inhabitants. There is a stream close by and about 80 acres of cultivation on the left bank. Transport procurable, yak and about 25 Tibetan ponies. Supplies, grain, grass, suttoo, sheep, and argols.

30	Dunkar	..	Ayi-la-tsa 17,400'	..	12½	315	The path which is a fair one, leads straight up the <i>nala</i> for some miles to the foot of
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the mountain range which shuts Gartok in from the west. Here is a good camping-ground: also a few huts and many sheep pens. These latter are used by the shepherds when taking sheep to or from Gartok.

From here the ascent of the Ayi La (18,700 feet) begins. The road is rough and steep: too steep for any but lightly laden animals, but not, however, too severe for yak. The descent on the northern side is easy and leads straight down the valley to Ayi-la-tsa.

ROUTE No. 5—concl'd.

The Ayi La is the most popular pass along this range, but its summits nevertheless at a great altitude. It is as a rule closed for about four months during the year.

There are two other passes which are at times used by travellers to and from Gartok; the Po-go La and the La-o-che La, south and north of the Ayi La respectively. Neither of these are much worse than the Ayi La.

Ayi-la-tsa has only a fair camping-ground but the water is good. Grass and fuel are only obtainable in small quantities. Yaks are obtainable for transport and argols are obtainable in large quantities.

31	Ayi-la-tsa ..	Na-ting-ting 16,700'	9	324	Immediately on leaving camp a stream has to be crossed, which can be forded
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ed with ease at all seasons of the year. The path enters a *nala* on the right hand side one mile below the camp, and crosses a small pass with a steep ascent. The track now leads over some spurs and across some small *nalas* into the main valley, down which, 3 miles distant, is situated the camping-ground of Na-ting-ting. A poor camping-ground but the water, grass and fuel are close at hand. No transport procurable.

32	Na-ting-ting ..	Gartok, 15,100'	12	336	Continuing down the valley for about 9 miles, Gartok is seen lying 3 miles off in
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the centre of a plain. The path down the *nala* is rough, but improves when the plain is reached.

Here the Junglam route from Leh to Lhasa is met. See Route No. 2,

Gartok or Gar Yar-sa, the capital of Western Tibet, is a village situated in the centre of an extensive plain on the right bank of the Gartang-chu, a tributary of the river Indus. The surrounding country is sandy and barren except that portion of it watered by the river. The place is, however, inhabited for only three months during the year, from August to October. It consists of three large mud brick houses and fourteen one-roomed huts. Two *Garpons* or Governors reside here and own two of the three houses, the third being reserved for officials. During the summer (the above mentioned three months) shepherds and nomads assemble here to the number of about 500 for the purpose of trade, and during this period a brisk business is done.

During the winter, for the remaining nine months of the year, the *Garpons* with their servants reside at a place called Gar Gunsu, 40 miles, or two marches, further up the river, where it is reported that there are four houses, a monastery, and a few huts. At neither place is there either wood or cultivation. From August to October, all native food-stuffs and yak and Tibetan ponies for transport are available at Gartok.

Route No. 6.

FROM SHIPKI TO GARTOK, *via* THE DRONGMO LA AND THE CHUMURTI COUNTRY.

Authority and date.—CAPTAIN RAWLING, 1904; H. CALVERT, Esq., I.C.S., 1906; MAJOR POWELL, R.E., 1907.

Epitome.

General direction north-east then east. This route is fit for mule transport after the first two stages from Shipki and is used by country pack animals throughout. Water and grazing good, fuel scarce throughout, supplies scanty, villages few. Crosses Maya La (13,700') at 7½ miles and rises to Drongmo La (15,700') at 16½ miles. Crosses the range west of Gartok by Laoche La, height 17,970 feet, but said by traders to be open and easy. Crosses Sutlej at 4½ miles above Shipki, Tangmet stream at 14 miles and Opchu s're m in 5th stage; unfordable in summer; the two former have rough country bridges, the latter has a natural rock bridge. This route is used by traders from Tashigang and Gartok; it is closed by snow from December to May.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
1	Shipki	Nyak	7	7	Descend by narrow path to <i>nala</i> , cross by a frail plank bridge, then ascend to Myak village. Easy to Serpun <i>nala</i> which is unbridged and impassable after noon. Sutlej is bridged by a frail cantilever; after this comes a steep ungraded ascent over loose stones and boulders to edge of Myak <i>nala</i> . Camp above a few fields beyond <i>nala</i> at about 11,900 feet. A few fields; no habitation.
2	Myak	Tokmid	15	22	Stiff ascent of over 2,000 feet to crest of Pure La, followed by descent of 1,700 feet to Pure, about 6 miles. Here there is a good site for a small camp if a short march be preferred. Thence passing through some petty hamlets and cultivation the track leads to a stream which is crossed by a plank. Good camping-ground just beyond Tokmid, below the Drongmo La at about 15,100 feet.
3	Tokmid	Somar Camp	9	31	Steep ascent to crest of Drongmo La (about 16,100 feet) leads to the fine open plain of Chumurti. Easy going and excellent grazing. Camp in <i>nala</i> at foot of Shangrang La at 15,900 feet. No habitation.

ROUTE No. 6—*contd.*

4	Somar Camp ..	Camp near stream.	14	45	Cross the Chumurti plain first north-east and then east-north-east; several <i>nalas</i> containing water <i>en-route</i> , so that the stage, if necessary, can be split into two. Camp in a broad valley by a stream.
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5	Camp ..	Sassil ..	8	53	Fairly level easy route; camp in a deep ravine at 15,325 feet. The path to Tashigong branches off 2 miles from camp. No habitation.
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6	Sassil ..	Somar monastery.	12	65	Steep and difficult ascent to a crest and then long descent to Op <i>nala</i> , which is crossed by a natural rock bridge. Steep ascent of 3,000 feet to eastern edge of <i>nala</i> and then easy descent to Somar. This is the first inhabited place after Tokmid. At Somar is a small monastery. About 14,875 feet.
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7	Somar monastery.	Jangtang ..	10	75	The path winds round amidst sandhills. Easy level going all the way except the last descent to Jangtang which is steep. Camp on bank of stream near Jangtang village. About 14,050 feet.
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8	Jangtang ..	Shangtsi (Senge Dzong)	13	88	Very steep ascent of about 600 feet, then heavy going over sand to Rabgyaling monastery (4 miles) where there is a good site for a camp. Then come 3½ miles of sandhills to Shoktse village in a <i>nala</i> . Ascent from Shoktse to Rallan La 14,950 feet, over sand and easy descent to Shangtsi (14,075 feet) is the residence of the Dzongpon of Tsaparang and head-quarters of the Tsaparang district. The so-called Dzong is in no sense a fort, but merely a low-roofed house with a maze of courtyards. Behind it is the village. Across the stream are cave dwellings and a small Buddhist chapel. See Route No. 74, stages 6 and 7.
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9	Shangtsi ..	Shang ..	5	93	The route proceeds straight up stream, past the village of Zaye to Shang village. Above the village there are water and fuel 3 miles along the next stage for a camp, if it be considered desirable to lengthen this march.
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10	Shang ..	Phalong Rairol	11	104	The path leaves the <i>nala</i> at Shang and ascends to a plain over which it passes for several miles and then proceeds up a <i>nala</i> to camp. No habitation and very little ground for tents. Height about 16,775 feet.
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ROUTE No. 6—*concl'd.*

11	Phalong Rairol	Camp	..	12	116	Ascent up the <i>nala</i> for 3 miles to crest of Laoche La, 17,950 feet. Descent at first over rough, stony ground, soon becomes easy as the path leads to a broad <i>nala</i> Camp anywhere beyond a stream which crosses the route flowing to the left. No habitation. Height 16,625 feet.
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12	Camp	..	Gartok	..	13	132	An easy ascent to the first hump of the Zongchung La, 17,400 feet, is followed by a descent to a stream where the route over the Ayi La joins. Then the path crosses the second hump of the Zungchung La (17,725 feet). From here a long descent leads to the valley of the Gatanchu and then follows 4 or 5 miles of swampy level going across seven or eight streams to Gartok. If desired, camp can be pitched as soon as the valley of the Gatanchu is reached.
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For Gartok, see Route No. 5, stage 32.

Route No. 7.

FROM LABRANG OR KANUM TO GARTOK *via* THE SPITI RIVER AND BUDHPU LA.

Authority and date.—MAJOR POWELL, R. E.; from native information, 1907.

Epitome.

This route is used by traders from the following villages of the Upper Suttlej valley—Lippe, Labrang, Koila, Sunam, and Nako (on the Spiti river). It is a curious fact that the men of Labrang and Kanum villages, which are about a mile apart with good communication between them go to Tibet by this route and the Shipki route respectively. The length of this route is 17 stages roughly estimated at 200 miles. The route *via* Shipki and Chumurti (according to Calvert) may be perhaps 170 miles.

Passes crossed Runang La, Hangrang La (both about 14,000') in Bushahr, Budhpu La over the main range probably 16,000', and a pass north-west of Gartok over 17,000'.

The route is open from July to November or December and is passable by laden sheep, goats, donkeys and yaks, and horses are taken over it.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
1	Labrang, 9,100'	Sunam or Sangnam, 9,000'	10	10	Rise to Runang La (about 14,000 feet) path rough, very steep but not dangerous; then

ROUTE No. 7—*contd.*

steep open descent into Thanam Gad. Difficult crossing of the river opposite Sunam if the winter bridge has been taken up. Sunam and neighbouring villages have large cultivation area, some supplies, water, timber. Some Lama monasteries.

2	Sunam	..	Hango, 11,500'	12	22	Turn north up tributary valley and rise to the Hangrang La (14,050') path rough, very steep,
one cliff in the ascent. Easy descent on the north side to Hango.						
3	Hango	..	Leo, 9,600 feet	8	30	Path descends with occasional rises along open hillsides. There is a steep descent to Leo,
which is a small village on right bank of the Spiti river.						
4	Leo	..	Chango, 10,000'	14	44	Steep descent to the Spiti river, cross by bridge, and, turn north parallel to left bank rising
and falling over steep spurs. Chango is a village with some scanty supplies. Two miles further up the Spiti there is a bridge under Shilkar on the right bank. Through Shilkar and over the Lepcha pass lies the route to Spiti and Leh.						
5	Chango	..	Zangsam	7	51	North over spurs, camp at or east of Zangsam, where there are said to be hot springs.
6	Zangsam	..	Kuri	8	59	North-east up a tributary valley crossing the stream by a rock bridge, one mile short of Kuri.
Path good for country animals.						
7	Kuri	..	Sumgiul	10	69	North-east bank of Kuri river, path fair. Sumgiul has about 10 households.
8	Sumgiul	..	Sumla Kar	11	80	Path fair, crosses and recrosses stream, no cliffs. Sum'a Kar is a shepherds' camp.
9	Sumla Kar	..	Nufu or Chakra- chan.	8	88	Rise for four hours to the Budhpu La, very steep and rough, no dangerous cliffs. Snow has
often to be crossed. Similar descent about two hours to shepherds' camp at Nafu. Country baggage animals rarely have to be unloaded in crossing the pass, but the rise is unrideable.						
10	Nufu	..	Dadar Chan	12	100	Easy open descent to the Chumurti plateau. Hence open tracks lead to Tangmet (south) (see

route 6), Tashigong (north) or Gartok (east), see routes 5 and 6.

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ROUTE No. 7—*concl'd.*

11	Dadar Chan	..	Serti	These are shepherds' stages on the plateau and have variable names.
12	Serti	..	Neki	..	..	..
13	Neki	..	Laboche	..	..	..
14	Laboche	..	Orlo	..	..	..
15	Orlo	..	Shangpu	..	..	..
16	Shangpu	..	Daglang	Open road. See route 5.
	Daglang	..	Gartok	..	..	200

Total approximate distance, 200 miles roughly estimated.

Route No. 8.

FROM LABRANG OR KANUM (SUTLEJ VALLEY) TO GARTOK, *via* SPITI RIVER, SHANGRANG LA AND CHUMURTI ROUTE.

Authority and date.—MAJOR POWELL, R.E., from native information, 1907.

Epitome.

The first ten stages of this route are alternative to Route No. 7 and form a recognised route for travellers to Tas Liging (Route No. 4), Gargunsa (Route No. 2) or Gartok (Route No. 5), but it is little used owing to the difficulty of the Shangrang La, and the Budhpu La (Route No. 7) is preferred even with the necessary detour involved. Men, however, who crossed the Shangrang La in 1905, stated that they did not unload their animals to cross the pass.

Passes crossed are Runang La and Hangrang La (both about 14,000') in Bushahr, Shangrang La over the main range and a pass north-west of Gartok over 17,000 feet.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
1	Labrang	.. Sunam	.. 10	10	} <i>Vide</i> Route No. 7.
2	Sunam	.. Hango	.. 12	22	
3	Hango	.. Leo	.. 8	30	
4	Leo	.. Chango	.. 14	44	
5	Chango	.. Zangsam	.. 7	51	
6	Zangsam	.. Kuri	.. 8	59	
7	Kuri	.. Sumgiul	.. 10	69	

ROUTE No. 8—*concl'd.*

8	Sumgiul	..	Telang	..	10	79	Track goes up a tributary valley, steep ascent over gneiss debris, fair for country animals.
Telang is probably a camp of variable name with water and yak-dung fuel.							
9	Telang	..	Shangrang Larkuk.		8	87	Over the Shangrang La (between 16,000 and 17,000) the going is very bad, but said to be just passable for loaded animals. Snow is crossed. The track is not cleared but is marked by stones. At Larkuk there is no "dogri," but there is fuel and water,
10	Shangrang Larkuk.		Tangmet Plateau		7	94	The descent to the plateau is at first steep, then easy. The plateau is reached a few miles
north-east of the Tang met "hap has."							
11	Tangmet Plateau.	..	Serti	..	..	..	} See Route No. 7.
12	Serti	..	Neki	..	..	..
13	Neki	..	Laboche	...	..	..
14	Laboche	..	Orlo	..	..	..
15	Orlo	..	Shang	..	..	..
16	Shangpu	..	Daglang	..	..	..	} Open road. See Route No. 5.
17	Daglang	..	Gartok	..	..	195	

Route No. 9.

FROM WANGTU (MILE 116, HINDUSTAN-TIBET ROAD), TO TOLING,
viâ TODOONG GAD, THE SHOLARANG OR GUNRANG PASSES
 AND BEKAR.

Authority and date.—MAJOR POWELL from native information.
 1907.

Epitome.

This is a route occasionally followed by dwellers on the left bank of the Sutlej above Wangtu. It is passable by laden sheep and goats, unladen ponies and donkeys are led over. For 40 miles the route ascends the left bank of the Sutlej, then turning east by south into the Toodong (or Tidang) Gad, it crosses the main range of the Himalayas at about 70 miles by the Sholarang pass, or in winter and when the snow bridges remain, by the Gunrang pass which is easier. Thence it descends to Bekar Begar or

ROUTE No. 9—*contd.*

Biar) in Western Tibet, a favourite grazing-ground with a small village whence tracks lead to Shipki, to Nuk by a rock bridge over the Sutlej and to Tsabarang. The description is from traders' reports and may be moderately trustworthy. The route exists and is shewn on the $\frac{1}{4}$ " map.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Wangtu ..	Kilba ..	11	11	There is a precipitous path on the left bank, but by crossing the Sutlej and at Wangtu suspension bridge following the Hindustan-Tibet road to Chargaon and then recrossing by the Sholto bridge at 7 miles a good road is used. At Kilba there is a forest bungalow, hospital, etc.
2	Kilba ..	Tanglin ..	10	21	Difficult path along left bank and through cliffs to opposite Chini where there is a wire rope cable.
3	Tanglin ..	Ribba ..	12	33	Difficult path rising and falling along steep hillsides of the left bank. Ribba is a large village.
4	Ribba ..	Tangl ..	10	43	Along forest path, generally rideable to Rispa, at 37 miles, a large village. At 38½ cross Todoong stream and turn east up its valley by a difficult track. The forest path leads on up the left bank of the Sutlej to Morang.
5	Tangl ..	Lambar ..	5	48	Continue up right bank by cliff path. Camp opposite Lambar above which there are no houses on the summer route.
6	Lambar ..	Kunu ..	10	58	Up a bad cliff path. On this march the winter route turns off up the south fork of the river, cover the snow in the valley bottom passing Charang village, 14 miles above Lambar; cross the Gunrang, an easy pass over the main range, and in 6 stages reach Zarang near Bekar.

The summer route goes on up the north fork to Kunu, where there is water, fuel and grass.

ROUTE No. 9—*contd.*

7	Kunu	..	Palurawa	12	70	Up by difficult path. At 5 miles Yamdam- ling, a patch of cul- tivation. At Palu- rawa there is water and thorn fuel, grass is scarce.
8	Palurawa	..	Harbu	8	78	Rise over Sholarang pass, the steep part of the climb takes about 2 hours. Hill- side open, no cliffs, short length of snow or glacier. Descend open valley and follow left bank to Harbu where there is water, good grass and yak- dung fuel. Descent equal to ascent.
9	Harbu	..	Zarangcha	10	88	Down valley, path bad through cliffs, then open plain with grass, water and fuel.
10	Zarangcha	..	Bekar, Begar or Blar.	6	94	Open hillside, no cliffs or dangers. Bekar is a fair sized village, many houses, yaks and flocks. Paths lead north-east to Shipki (Route No. 13), north to Tinzam-Kamba (rock bridge over Sutlej) and so to Nuk.
11	Bekar	..	Zarang	4	98	Open country, path rises gradually pas- sing Chuse monastery on opposite side of valley at 3 miles. Zarang, a small village, 4 houses. See Route No. 13.
12	Zarang	..	Riddigang	10	108	Rise to Karba (3 houses), rise again over a spur and descend to Riddi- gang, 10 houses, yaks and flocks.
13	Riddigang	..	Tichamur	10	118	Descend and cross stream, then rise to Tichamur. Some cliff in this march where one would have to dismount. Camp, no houses, water, grass and fuel.
14	Tichamur	..	Poling	11	129	Cross a pass in this march, open hillside no cliffs, all rideable. Poling has 10 houses, cultivation, yaks and some ponies.
15	Poling	..	Tsabrang	13	142	Descent easy and ride- able throughout. Tsa- brang has a large vil- lage and a Dzong, and is the seat of the deputy governor of the district.
16	Tsabrang	..	Barku	13, 7	149	A small village.

ROUTE No. 9—*concl'd.*

17	Barku	..	Toling	..	8	157	At 2½ miles the left bank of the Sutlej is reached; the road then runs along the bank to
Toling. See Route No. 12.							

Route No. 10.

FROM WANGTU TO BEKAR *viâ* MORANG AND THE NISANG VALLEY.

Authority and date.—MAJOR POWELL, R.E., from native information, 1907.

Epitome.

A bad track only passable with difficulty by country baggage animals, only used for small local trade and by pilgrims occasionally. Crosses a pass into the Nisang valley and a high snow pass over the main range.

No. of stage.	NAMES OF STAGES.				DISTANCES.		REMARKS.
	From		To		Inter- me- diate.	Total.	
3	Wangtu	..	Ribba	..	33	33	3 stages, <i>see</i> Route No. 9.
	Ribba	..	Morang	..	7	40	Along forest path on left bank of Sutlej, generally rideable, to Rispa at 54 miles; at 5½ miles
cross Todoong stream and reach Morang, a large village at 7 miles.							
5	Morang	..	Nisang	..	8	48	A long trying ascent over the Ginam range (over 13,000') and then drop steeply into the
Nisang valley by a bad rocky path. Nisang has about 15 households. There are no more villages on the route.							
6	Nisang	..	Giamting	..	7	55	Up left bank of the valley. Path is bad, through cliffs. Camp with grass, good water.
7	Giamting	..	Ruhten	..	10	65	As before path bad. Grass, water, thorn bushes for fuel.

ROUTE No. 10—*concl'd.*

8	Ruhten	..	Tilsap	..	8	73	Over spur and on up the valley as before.
9	Tilsap	..	Zongchen	..	6	79	Rise up open valley, a few rocky places. Good grass and water; fuel scarce.
10	Zongchen	..	Dhorm-tzo ^u	..	7	86	By a very steep ascent through dangerous lifts the track rises to the Kibarang pass at 3½ miles, and after 3½ miles of dangerous descent reach camping-ground. The route from Poo <i>via</i> the Rishi valley joins in on the west side of the Kibarang. See Route No. 11.

11 Dhorm-tzon Bekar .. 11 97 Rise over an open spur. No cliffs or rocks and descent to Bekar. A fair sized village with horses, yaks and flocks. Hence routes (more or less bad) lead east to Tsabrang (see Route No. 9) north over a rocky bridge across the Sutlej, to Chumurti, west with great difficulty to Shipki. See Route No. 13.

Route No. 11.

FROM POO (HINDUSTAN-TIBET ROAD) TO BEKAR *via* THE RISHI VALLEY AND KIBARANG.

Authority and date.—MAJOR POWELL from native information, 1907.

Epitome.

This route crosses the Sutlej at Poo and rises at once to the highlands and passing up the Rishi valley, crosses by the Rishi Kantang into the head of the Nasang valley thence by Route Nos. 10 and 9.

A very bad track and in places dangerous but used in autumn of 1906 by pilgrims from Poo with 20 ponies and donkeys and they said they did not unload.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
1	Poo	.. Rishi Dogri ..	9	9	Poo is 190 miles from Simla, 25 miles beyond the present end of the Hindustan-Tibet road.

ROUTE No. 11—*concl'd.*

The track descends to the old bridge and crosses the Suttlej, at present in summer by a pulley and in winter by a temporary bridge. Ascend then perhaps 3,500 feet in steep zigzags up the hill on the left bank facing Poo. Then turn over the flank of a great spur east by the Rishi valley.

2	Rishi Dogri ..	Camp in upper Rishi valley.	8	17	Up the valley over many snow bridges.
3	Rishi valley ..	Camp in upper Nishang valley.	..	..	Route turns south-east and climbs the great snow-clad spur between the Rishi and Nasang
valleys and drop into the latter after crossing the difficult Rashi Kantang pass.					
4	Nisang valley	Dhormtron ..	..	..	Over Kibarang pass, <i>vide</i> Route No. 10. The Poo people appear to call this pass Kiukh
Range.					
5	Dhormtron ..	Bekar ..	..	..	See Routes Nos. 9 and 10.

Route No. 12.

FROM JANGLA (GARHWAL) TO GARTOK *viâ* THE NELUNG PASS.

Authority and date.—LIEUTENANT G. M. FRANKS, R.A., 1st November 1891.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
1	Jangla ..	Kurraen or Karcha.	..	..	Nelung road leaves Ganguotri road at Jangla and turns to the left up a steep khud about 20°
2	Kurrach or Karcha.	Nelung ..	..	..	gradient, very narrow and difficult road, the rocks on either side very precipitous and

almost inaccessible. Road is impassable for any baggage animals and difficult for lightly laden coolies; it frequently goes up and down gradients of 30° for short distances and also up and down rough ladders of fallen trees and stones

ROUTE No. 12—*contd.*

where rocks are too steep to scale—crosses the Gadh Gunga by a rough wooden bridge at Gartoga. A good road as far as Nelung could be made without unusual difficulty. There is a small camp at Gartoga for about 50 men, also one at Kurrach for about 400 men—these are the only camping-grounds. Nelung is a bad camp, almost all available space being occupied with rice-fields. Water-supply is bad as the Gadh Gunga is about 200 feet below Nelung down a steep khud, the small stream near Nelung is not good water. Khets (fields) are too wet for camp: about 200 men could camp there.

3	Nelung	...	Dosumda	..	6	..	Narrow road along the face of a steep khud of loose stones follows the course of the Gadh
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Gunga up; the ascent is easy but the road very bad and difficult; the khuds along which it passes are mostly loose chalky stones, which the smallest shower of rain brings down in large quantities. It also passes along the face of a rock on a rough platform made by inserting sticks into the crevices and laying others and flat stones across. A good road would be very difficult to make owing to the looseness of rocks and stones.

Manaka Ghad and Dosumda are small camps, large enough for 100 men each. Good water-supply.

4	Dosumda	..	Hangra	7	..	Road similar to last march. Several small streams to cross, all fordable. Camp at
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Sonam for about 100 men. Water good, firewood obtainable as far as Sonam. Beyond Sonam there are no trees of any sort and the roots of brushwood are used as firewood. Small camp at Hangra for about 50 men.

5	Hangra	..	Pulamsumda	..	6	..	Similar to last march. Above Tirpani the road crosses and recrosses the river several times; it is
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fordable above Tirpani except after heavy rain, when the road is closed as no bridging material is available. Small camp at Tirpani for about 50 men, very stony. Excellent camp at Pulamsumda, open grassy valley, half a mile long and 200 to 300 yards wide. Gadh Ganga flows down the centre and supplies good water. There is ample room to camp 500 or 600 men up the valley of tributary of Gadh Ganga at Pulamsumda.

6	Pulamsumda	..	Mendi, 14,400 ft.	6	..	Above Pulamsumda the road improves considerably and is passable for yaks, ponies,
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etc., with loads. Road runs along the grassy valley of stream, ascent easy. Camps could be pitched along bank of stream as far as Mendi. Valley about 100 to 200 yards wide. Mendi is at the foot of the last part of ascent of pass.

7	Mendi	..	Hopka Ghad, 13,675 ft.	5	..	Steep ascent to the top of pass, 17,490 feet, and steep descent of nearly 4,000 feet to Hopka
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ROUTE No. 12—*contd.*

Ghad. Road is wide but entirely over loose stones. Coolies cannot carry loads owing to the great elevation; there is generally snow on the top of the pass in drifts, but not enough to close road.

Small and bad camp at the Hopka Ghad river, very stony and only large enough for about 100 men. Good drinking water but scanty grazing for baggage animals.

8	Hopka Ghad ..	Dogka Saur ..	10	..	Road crosses Hopka Ghad by ford, in ordinary weather easy passable, but rises very rapidly after rain and snow and becomes unfordable. No bridging material obtainable as there are no trees nearer than Sonam. Steep ascent for a short distance from the river, then an easy descent along grassy slopes to Dobka Saur. Good camp at Dobka Saur for about 400 men, and several thousand could be camped along the wide open valley around. Good water and grazing.
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9	Dobka Saur ..	Poling ..	9	..	Good and almost level road along a grassy valley. Snow peaks along the right of road and lower hills to the left. Large camp at Poling, a small Tartar town. Flour, rice and meat obtainable. See Route No. 9.
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10	Poling ..	Sharramarak ..	6	..	Road similar to last march. A small stream to ford at Poling. Good camp at Sharramarak.
11	Sharr amarak	Mutti ..	5	..	Road similar to last march, camping-ground at Mutti.
12	Mutti ..	Toling ..	5	..	Similar to last march good easy road. Large dry <i>nala</i> near Toling crossed by a wooden bridge.

Toling is a Tartar town with a bridge over the Sutlej.

It is a wooden cantilever bridge of 75 feet span, but as the space is greater than the beams can stand, it is supported by two suspension chains. The approaches are level and pass under stones 5 feet 6 inches wide and 7 feet high.

Toling was once the capital of Western Tibet and consist of three lamaeries of considerable size; a village consisting of a number of substantially built house, and numerous ruins. On three sides of the village there is 150 acres of cultivation which afford ample space for camping.

Transport procurable, yak and about 10 ponies. Supplies—sutto, grass, sheep and fuel.

ROUTE No. 12—*concl'd.*

13	Toling	..	Nairsing-sumdo	6		Cross the Sutelj by bridge and proceed to Nairsing sumdo, a village.	
14	Nairsingsumdo		Boga La (top of pass).	13	..	A mountain pass, 19,220 feet high.	
15	Boga La	..	Khanglah	..	16	..	Road chiefly along a small stream flowing north-east.
16	Khanglah	..	Gartok	..	4	..	See Route No. 5.

Route No. 13.

FROM NILUNG TO SHIPKI *viâ* SHANGYOKLA PASS.*Authority and date.*—Report of the Great Trigonometrical Survey, 1871-73.*Epitome.*

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
	Nelung	..	....	..	A village on the banks of the Ganges. See Route No. 12.
1	Nelung	..	Ghonam or Sonam.	9½	Road along the banks of the Ganges, which is crossed twice. See Route No. 12.
2	Ghonam	..	Changjum Sumdo.	7½	Road still along the Ganges which it crosses once. The camping-ground is at the junction of another stream with the Ganges. Pulam Sumdo (see Route No. 12) is passed on the road.
3	Changjum Sumdo.	..	Shangyok La	12½	Mountain pass separating English and Tibetan territory.

ROUTE No. 13—*concl'd.*

4	Shangyok La ..	Zarang ..	11½	41½	A village on the banks of a stream which flows northward into the Suttlej. See Route No. 9.
5	Zarang ..	Biar ..	4½	46	A monastery called Chuso is passed on the road. Biar is also a manastery.
6	Biar ..	Sumna ..	9	55	A mountain on the west of the road. Small stream flowing into the Suttlej crossed half-way.
7	Sumna ..	Sang ..	7½	62½	A village.
8	Sang ..	Tyak ..	10½	73	A village on the right bank of the Suttlej. See Route No. 5, stage 22.
9	Tyak ..	Shirki ..	10	83	See Route No. 5, stage 21.

Route No. 14.

FROM LANDOUR TO TOLING *viâ* MANA OF CHIRBITTIA PASS.*Authority and date.*—Report of the Great Trigonometrical Survey, 1871—73; LIEUTENANT BAILEY, 1906.*Epitome.*

The Mana La, also called the Tunyi La, is closed from December to May and is very little used as the road is very bad. At the top the pass does not open out, but keeps its ravine from the steep mountains on both sides being covered with perpetual snow. The descent into Tibet is occupied by a glacier formed from the great snow bed at the top of the pass.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Landour	..	..	A large convalescent depôt. Supplies and water abundant. Elevation 7,288 feet.

ROUTE No. 14—*contd.*

1	Landour ..	Dhunoultee ..	13½	13½	Road very bad, almost impracticable for laden ponies. Dhunoultee contains a few huts, supplies scarce, water procurable but at some distance below.
2	Dhunoultee ..	Kouryagulla ..	12½	25½	Road bad in places keeping along a high ridge. Supplies must be collected here. Water plentiful.
3	Kouryagulla ..	Tiri ..	11½	37	Gradual descent of 1,500 feet; then a steep descent of 3,500 feet; then road level and tolerably good to end of stage. Tiri is a small town, the residence of the Rajah of Gurhwal, situated on the left bank of the Bhageerettee, at its confluence with the Philung. Supplies and water procurable.
4	Tiri ..	Tukolee or Tak-laki.	17½	54½	Road fair. Tukolee is a halting place; few supplies procurable, water plentiful, country undulating.
5	Tukolee ..	Srinuggur ..	13	67½	Road fair. A town situated on the left bank of the Alukanda: supplies and water abundant. Country mountainous.
6	Srinuggur ..	Sirobugr (Sroibagar).	9½	77	Road very fair, ascending the greater part of the way. Sirobugr is a small village, supplies must be collected; water plentiful.
7	Sirobugr ..	Gurhsera ..	11	88	Road undulating and tolerably good. Gurhsera has a few huts; supplies scarce; water procurable.
8	Gurhsera ..	Kurnprag ..	14½	102½	Road as above. A small bazar and Government dispensary. Supplies procurable; water plentiful.
9	Kurnprag ..	Chumoll ..	14½	116½	Road tolerably good and level, running up the left bank of the Alukanda. A village, supplies procurable in small quantities; water plentiful.

ROUTE No. 14—*concl'd.*

10	Chumoll	..	Tugnee	..	12	128½	Road level for 3 miles, then a series of easy ascents and descents. A village, few supplies,
							and water procurable.
11	Tugnee	..	Gosh'nath	..	12	140½	Road tolerably good. A few huts situated on the left bank of Alukanda near its
							junction with the Doulee. Supplies procurable, water plentiful, country mountainous.
12	Goshinath	..	Badrinath	..	13	153½	....
13	Badrinath	..	Gustoli	..	9½	163	Along the banks of the Sarawasia river which it crosses. Mana village is passed at 1½
							miles.
14	Gustoli	..	Tarisumdo	..	11½	174½	Still along banks of stream.
15	Tarisumdo	..	Kitrurao	..	11½	186	At about 5 miles the Himalayas are crossed by the Chirbittia La or Mana La pass, which is
							the boundary of British territory. The pass is difficult and steep, but passable for laden animals in summer.
16	Kitrurao	..	Lumarti camp	..	8½	194½	..
17	Lumarti	..	Churkong	..	6½	200½	A village with a custom house.
18	Churkong	..	Barku	..	14½	215	See Route No. 9.
19	Barku	..	Tolling	..	5	220	See Route No. 9.

Route No. 15.

FROM GOSHINATH TO MISAR *via* THE NITI PASS.

Authority and date.—Great Trigonometrical Survey, 1871—73 ;
CAPTAIN RAWLING, 1904.

Epitome.

A road exists at the present time from Hurdwar to Goshinath with no gradient greater than one in eight ; good going throughout.

The Niti La has an altitude of about 16,700 feet, and is distant from Almora, 158 miles. The country on the northern side is easy and the descent gentle. The Niti La is closed from December to May.

This route is much used by traders but is narrow and difficult in some parts, and sheep and goats are almost the only transport animals used.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate-	Total.	
1	Goshinath ..	Tapoban ..	7	7	Country mountainous. Road a mere sheep track, generally good, but rocky and bad in places for horses. A small village, supplies scarce, water procurable.
2	Tapoban ..	Serai Thota ..	7	14	
3	Serai Thota ..	Juma ..	8	22	Country and road as in last stage. Juma is a small village, supplies scarce, water procurable.
4	Juma ..	Malari ..	9	31	A large village near the left bank of the Doulee. Supplies, fuel and water procurable. Extensive cultivation of barley. Large flocks graze in the neighbour- hood. Plenty of game in the vicinity.
5	Malari ..	Niti ..	10	41	Road leads along the left bank of the Doulee for 3 miles, when the river is crossed. The villages of Phurkea and Gumsalee are passed on the road. On leaving Gumsalee the road enters a gorge and crosses the Doulee thrice. In that space the river is unfordable and the cliffs are rugged and precipi-

ROUTE No. 15—*contd.*

tous, quite impracticable for the most skilful cragsman to crown. There is a mountain path along the face of the cliff on the right bank of which two or three bridges are avoided, but this could be very soon rendered impassable. On emerging from the gorge the road enters a valley. At this point a road leads up the Hoti valley to the north-east and the Chor Hoti pass into Tibet. Elevation of pass 18,000 feet; difficult and steep, but passable for laden animals from May to September. If desirable the gorge can be avoided by following a path over the mountains on the opposite side of the Doulee, crossing the river below Bompā. A tree bridge fit for laden animals spans the Doulee at Niti. From this village supplies must be taken on for several marches. Niti is a village containing about 50 houses, on the left bank of the Doulee. Large flocks and herds. Wood and water plentiful.

6	Niti	..	Goting	..	6	47	The road runs up the left bank of the river crossing many spurs from the mountains
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on the right, or if preferred the Doulee can be crossed at Niti. A fair road then leads along and above the right bank, recrossing the river by a strong stone bridge 1 mile from Goting, which is a halting place on the left bank of the Doulee; wood and water plentiful from May to September.

7	Goting	..	Kharbasiya	..	5	52	For two miles the road continues over shingle along the left bank of the Doulee, crossing
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a stream from the Dungni glacier at 2 miles. This is generally fordable in the morning, dangerous after noon in July and August owing to the action of the sun on the ice. A tree bridge could be easily thrown across, but wood must be brought from Goting, the last place where there are trees. At the third mile the Kharbasiya gorge is entered. This is about 2 miles long and 120 yards broad. The rugged precipices on either side are quite impracticable for footmen, but the gorge can be turned by a mountain pathway from the Dungni sheepfold, which crosses the ridge behind the left precipitous bank of the Doulee and descends to the river (fordable early in the morning) about 300 yards above the upper entrance of the gorge. Water and brushwood procurable.

8	Kharbasiya	..	Kiunglung	..	8	60	For 2½ miles the road winds along the sloping downs; it then descends to the Dou-
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lee and crosses the Gunes Gunga just above the junction of the two rivers. In July the ford is sometimes practicable, but 1,000 yards further up the river is broad, narrow and always fordable. The road then winds by steep zig-zags up a face of the mountain. After ascending 800 yards the crest is reached; the remaining part is easy. Yaks are chiefly used for baggage, as coolies are scarce. Elevation 14,544. Kiunglung is an encamping ground at the foot of the Niti pass. Water plentiful, and forage from June to September. Fuel scarce.

ROUTE No. 15—*contd.*

9	Kiunglung ..	Sirkia ..	9	69	The road proceeds along the shingly bed of the Doulee, crossing the river (always ford-able) twice in the first $1\frac{1}{2}$ miles. The ascent to the crest of the Niti pass (reached at 3 miles) is easy but stony. On the northern side the tableland of Tibet is at once entered upon, no mountainous country intervening as in other passes. The road is good descending gently, and marked by successive piles of stones (useful when the road is covered with snow, as is the case here very early in the season). At the 6th mile the Jindu encamping ground is passed; thence the road follows the ravine formed by the Jindu river to its junction with the Tunjun at Sirkia. In addition to quantities of game, the wild horse, yak and ovis ammon are found in this neighbourhood. Sirkia is an encamping-ground with the high cliffs of the Tunjun river on either side. Water, fuel and grass plentiful.
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10	Sirkia ..	Newchung ..	8 $\frac{1}{2}$	77 $\frac{1}{2}$	The road ascends the sloping bank above the junction of the Tunjun and Jindu rivers; then lies over a plain for about 6 miles, when it crosses a ridge separating the Sag from a broad ravine. The road then winds along the bed of the river for 2 miles. Seven miles down the Sag, situated among ravines, is the valley of Dongphu, containing 10 houses and a monastery. A little barley is grown; and numerous flocks and herds belong to the inhabitants. Newchung is an open encamping ground on the left bank of the Sag. Water and fuel plentiful, and forage from May to November.
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11	Newchung ..	Tulung ..	11	88 $\frac{1}{2}$	The road crosses the Sag (bed hard and gravelly, fish in great numbers) on starting, then ascends the right bank, which slopes up to the plain 600 feet above the river. Over this plain the road lies for 5 miles, when it enters a hollow which gradually widens into a ravine from 200 to 400 yards broad. At the 10th mile the dry bed of the Daka is entered. The glare from the snow is so great, both in winter and summer, that the Tartars use cloth to protect the eyes. Tulung is an encamping ground on the left bank of the Daka. Water and fuel plentiful, and forage from May to November.
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12	Tulung ..	Shipchalum ..	16	104 $\frac{1}{2}$	Cross the Daka on starting. The road shortly after enters on the plain which runs down to the Sotlej. This it traverses for $4\frac{1}{2}$ miles and then ascends an easy spur. At the 10th mile it descends into rough and raviny ground, in which flow the Junkum and Chirchum. A small wooden bridge spans their united waters at Shipchalum, which is a halting place $\frac{1}{4}$ mile below the junction of the Junkum and Chirchum rivers. Water and fuel plentiful, also forage from April to October.
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ROUTE No. 15—*concl'd.*

13	Shipehalum ..	Kyung-lung ..	16	120½	The Chirchum is crossed on starting; the road then runs up its right bank and afterwards traverses the plain above for 2 miles, when a ravine nearly a mile broad is reached. At the 6th mile, "Gum," where a little water bursts out and runs towards the Sutlej, is passed, and at the 16th mile the Sutlej itself is reached; the road then winds up the left bank, for the last ½ mile along the scarp over hanging rock. Between the 1st October and 1st May the river is fordable in many places. Kyung-lung is a camping-ground on the left bank of the Sutlej. Near by, in four caves, reside two families. Just below is a hot spring. Half a mile to the north of the river is a large <i>gompa</i> containing six lamas. No transport procurable. Supplies—wood only. A certain amount of cultivation. See Route No. 73, stage 1.
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14	Kyung-lung ..	Nisar (Men-ze)	17	137½	Cross the river by a small cantilever wooden bridge, 20 feet in length, 3 feet in width, and 10 feet above the river in summer, but the river can be crossed on the ice in the winter, at which time the road continues along the left bank; then crossing the river ascends for about 2 miles, after which there is a sharp descent of 800 feet to the ruined <i>gompa</i> of Palkia. The path now goes for a mile to a ford over a branch of the Sutlej, the depth of water being 18 inches and the width 40 yards. After crossing the ford the path goes across an open valley where the grazing is good, till 10½ miles where it ascends gently, gradually turning to the north-east, till at 15½ miles it crosses the river by a ford, 1 foot deep and 30 yards wide. 1½ miles further to the north is the Tasam of Misar surrounded by grassy flats (see Route No. 2, stage 134).
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It consists of two roughly built stone and mud brick houses, resembling a miniature village. These houses contain altogether fifteen rooms. There is in addition a few tents. The whole place has a population of 50 souls. The Tasam contains all ordinary necessities. Transport procurable—yak and a few Tibetan ponies. Supplies—grass, grain, sheep and wood.

Route No. 16.

FROM KIUNG-LUNG (THE NITI LA PASS) TO GARTOK *viâ* THE CHOKA LA.

Authority and date.—COLONEL MONTGOMERIE, R.E., 1871-73.

Epitome.

The Niti La has an altitude of about 16,700 feet, and is distant from Almora 158 miles. The country on the northern side is easy and the descent gentle. The path enters a branch *nal* of the Sutlej and in two short marches enters Dapa Jong. From here the usual road to Gartok is either

ROUTE No. 16—*contd.*

over the Pogo La or Choka La; the former of which is the higher but the most direct line. Dapa Jong is distant five marches from Gartok. Water and grass are procurable all along this road, and also a little fuel and grain.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
	..	Kiung-liung	..	..	An encamping ground in British territory at the foot of the Niti pass (see Route No. 15, stage 8.)
1	Kiung-lung ..	Loongre ..	16	16	The road continues along the shingly bed of the Doulee, crossing the river (always
fordable) twice in the first $1\frac{1}{2}$ miles. The ascent to the crest of the Niti pass (reached at 3 miles) is easy but stony. On the northern side the tableland of Tibet is at once entered upon, no mountainous country intervening as in other passes. The road is good, descending gently, and is marked by successive piles of stones useful when the road is covered with snow, as is the case here, very early in the season. At the sixth mile the Jindu encamping ground is reached. The road then crosses the Jindu and leads over a grassy plain, crossing the Mukah at 9 miles.					
Loongre is a halting place, water and fuel plentiful, also forage from April to October.					
2	Loongre ..	Sutlej river or Dapa Jong.	18	29	The road for 10 miles leads over a level plain, then winds by a well-contrived track
through ravines to the river, falling about 1,200 feet in 3 miles. The Sutlej (deep and rapid) is spanned by the Dapa bridge, 45 feet long and 4 feet wide, constructed of trees brought from British territory. Dapa Jong is a place of considerable importance and consists of two well-known monasteries, a number of houses and a <i>jong</i> . Transport available—yak and a few ponies. Supplies—grain, <i>sutloo</i> , grass, goor, sheep and fuel. The fields afford good camping-grounds. The actual march ends at the Sutlej river but Dapa (9 miles) would seem a more convenient place for a halt. See Route No. 73, stage 5.					
3	Sutlej river ..	Choka La ..	14	43	After leaving the Sutlej the road leads over a grassy plain to Churoolba (a little water)
and thence over easy sloping hills.					

ROUTE No. 16—*concl'd.*

4	Choka La	..	Camp	..	11½	54½	A hot spring. At this place road along the banks of a small stream called the Ja-
marmo, which it twice crosses.							
5	Camp	..	Namochia	..	11½	66	At 6 miles the right bank of the Gartung-chu river is passed, and road proceeds along
its left bank. Namochia is a village.							
6	Namochia	..	Gartok	..	11½	77½	Road along the left bank of Gartungchu and crosses it about three-quarters of the
way, and then along the right bank to Gartok. See Route No. 2, stage 138, and Route No. 5, stage 32.							

Route No. 17.

FROM MILAM (KOMAON) TO GARTOK, ETC., *via* THE UNTADHAURA.

Authority and date.—CAPTAIN RAWLING, 1904; LIEUTENANT BAILEY, 1905; CAPTAIN SHUTTLEWORTH, 1905, and Mr. C. A. SHERRING.

Epitome.

The Untadhaura pass has an altitude of 17,590 feet and is 173 miles from Almora. Captain Rawling says :—This pass is so bad, and the ascent and descent so bad, that from a military point of view, it is useless. Mr. C. A. Sherring describes it as “quite the most hopeless that can be imagined for imperial trade—the difficulties are appalling.

Though this road is so difficult there seems to be no doubt that it is used a great deal by the traders who come down into India from Taklakot and Karko to Milam. In fact Captain Bailey says that this route is used more than any other by traders from India.

The Tibetans call the Untadhaura pass the Kyunam La ; it is usually closed from December to February.

The Untadhaura, 13 miles from Milam, is really the first of a series of passes ; it is impossible to enter Tibet by this route without passing over three passes, the country being spread out like a fan of which the Untadhaura is the handle : the three principal passes in connection with it are :—

- (a) The Shal-shal (16,390 feet).
- (b) The Balchha (17,590 feet).
- (c) The Kingri Bingri (18,300 feet).

ROUTE No. 17—*concl'd.*

These routes lead to Dapa Shipchilam, Gartok, Kyung-lung, Misar, Gyanima, etc. After crossing the Untadhaura proper, a fairly easy pass, there are two alternate routes.

(1) The western, after passing the Topidunga encamping-ground (14,830 feet), crosses the Kungr pass (17,000 feet) to the halting place of Chidamu (13,520 feet) or of Lapthal (13,990 feet) a little beyond. From here there is a choice of several passes.

(a) The Shal-shal on the west leading to Dapa and Shipchilam; it is the only easy part of the Untadhaura route and is the direct way to Gartok. It is only used by persons going to Niti from Shipchilam who proceed over either the Greater Hoti, or Lesser Hoti, two alternate routes.

(b) The Balchha pass, east of Shal-shal. This is the direct route to the trading mart of Gyanima and from Chidamu runs to the halting place of Sangcha (14,110 feet) and then over the Balchha not far from Gyanima.

Further east there is another pass, the Keo, also to Gyanima.

(2) The eastern route leads over the Jaintidhaura (17,000 feet) to :—

(c) The Kingri Bingri. This is the shortest route to Gyanima but is a very difficult pass and impossible for military purposes. If it is followed, all three passes must be crossed without stopping (a journey which occupies a day and a night for sheep and goats) because there is no fuel and the cold is so great as to seriously affect baggage animals; there is also danger from avalanches.

From Gyanima to Gartok the route is as follows:—

(1) Shitrum (or Shinglache, 1 mile beyond Shitrum).

(2) Misar.

Thence by Route No. 2, stages 135 to 138.

Route No. 18.

FROM ASKOT (KUMAON) TO BARKHA *via* LIPU LEKH PASS AND TAKLAKOT.

Authority and date.—MAJOR-GENERAL CHANNER, 1894; CAPTAIN RAWLING, 1904; LIEUTENANT F. M. BAILEY, 1905.

Epitome.

Good roads run from Almora to Askot, distant about 70 miles; and from Thanakpur to Askot, distant 85 miles. Thanakpur is mentioned as it is proposed to extend the railway to this place. The total distance is 154½ miles from Almora to Lipu Lekh pass or 169½ miles from Thanakpur. The road as far as Lipu Lekh at the present time (1904) is extremely bad, so bad indeed that laden ponies and mules cannot march along it. Paths over undulating country, where the road is reported to be good, lead to the important towns of Taklakot or Purang.

ROUTE No. 18—*contd.*

This road is used by traders from India, and is said to be the easiest pass to travel of all the passes from Kumaon. It is usually closed to transport animals from December to February, but is always passable for coolies. Captain Shuttleworth (1905) reports that it is practicable for mounted infantry and mountain guns from April to December.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
1	Askot ..	Balwakot ..	11½	11½	
2	Balwakot ..	Dharenula ..	9½	21	
3	Dharenula ..	Khela ..	9½	30½	
4	Khela ..	Tithla ..	8	38½	
5	Tithla ..	Gulla ..	10	48½	
6	Gulla ..	Malpa ..	7½	56	
7	Malpa ..	Garbyang ..	10½	66½	
8	Garbyang ..	Kalapani ..	9½	76	
9	Kalapani ..	Lipu Lekh ..	8½	84½	
10	Lipu Lekh ..	Taklakote or Purang	8	92½	The route is a descent all the way from the Lipu Lekh to Taklakot. It lies down a <i>nala</i> from
<p>the top of which a stream rises, flowing down it into the Karnali at Taklakot. For the first five miles the <i>nala</i> is stony after which it opens out into a valley. At 4 miles Pala, a stone built <i>serai</i>, is passed and at 7 miles the village of Migram (30 stone houses). The stream is here crossed by a bridge but can be forded with difficulty.</p>					
<p>Taklakot, called by the Tibetans Puran, is the head-quarters of a Jongpon and consists of a <i>jong</i>, the Sibling monastery of 200 lamas and a village. It is situated on the right bank of the Karnali and is an important trade mart. The Taklakot valley is very fertile and contains about 15 villages; peas, barley, and wheat are grown but there are no trees. Supplies plentiful.</p>					
11	Taklakot ..	Balduk ..	18	110½	The road crosses the Karnali by a plank bridge at Taklakot (there is also a ford
<p>(6 miles up) and passes by a large straggling village with a lot of cultivation round it at 2 miles. Kardam, a small village 3 miles to the left of the road, is passed at 15 miles. The road is good; the whole way is a gradual ascent over stony downs. There is a camping-ground here, water plentiful, fuel obtainable.</p>					
12	Balduk ..	Lang Nga Drungang.	6	116½	The road for the first 3 miles is over a stony <i>maida</i> and then by a gentle ascent and des-

cent crosses a low range of hills to the lake, the water of which is good. Lang Nga Drungang is at the south-east corner of Rakas Tal lake.

ROUTE No. 18—*concl'd.*

13	Lang Nga Drungang.	Barkha ..	8	124½	The road runs along the spit of land separating the Mansarowar and Rakas Tal lakes.
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See route No. 2, stage 131.

Route No. 19.

FROM LANG NGA DRUNGANG TO PURANG or TAKLAKOT *viâ* GARLA MANDHATA.

Authority and date.—MAJOR-GENERAL CHANNER and CAPTAIN BOUCHER, 1894.

Epitome.

All camping grounds are large enough for any force and water is plentiful. Fuel is scarce at some camps but can always be obtained in the vicinity.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
1	Lang Nga Drungang.	Pankbo Monas or Toker.	8	8	The road first gently ascends and descends the ridge between the two lakes and for the rest of the way is quite flat and very good. The camp is on the southern shore of Mansarowar lake. Elevation 15,300 feet. See Route No. 18, stage 12.
2	Pankbo Monas	Camp ..	5	13	A gentle ascent eastwards. The best road for baggage is to keep in the bed of two <i>nalas</i> which lead one into the other. Elevation of camp 16,300 feet.
3	Camp ..	Camp ..	8	21	The road is very good and runs east-south-east over rolling downs covered with grass on which thousands of sheep graze. Fuel is very scarce. Elevation 16,300 feet.
4	Camp ..	Jockpolung ..	7	28	The road turns south-south-west and for the first half is a gradual ascent over grassy downs. The last half is an equally gradual descent. The camping-ground is in a plain about a mile broad and surrounded by hills. Elevation 16,500 feet.

ROUTE No. 19—*concl'd.*

5	Jockpolung ..	Camp ..	7½	35½	The road is nearly level over grass plains to a good camping-ground called Tokio

at 3½ miles; thence it follows a stream up a *nala*. Grazing and fuel plentiful. Elevation 16,600 feet.

6	Camp ..	Camp ..	14½	50	The first 7 miles is a gradual ascent westwards through a <i>nala</i> to the top of a pass 18,000 feet high. The road is very bad; no animals but yak and juboos could traverse it. The top of the pass is level for 1 mile and then the road descends down a deep and narrow <i>nala</i> in which is a stream. The camp (15,800 feet) is directly under the highest peak of Mt. Nimo Namgil.

7	Camp ..	Taklakot ..	12	62	For 6 miles a very bad road runs south-west down the same narrow <i>nala</i> . The exit into the plains is so bad that baggage animals can only get out by climbing the heights to the left and then descending. Thence a good road with a slight descent the whole way passes Dokchen village and crosses the Karnali by a plank bridge into Taklakot. For Taklakot see Route No. 18, stage 10.

Route No. 20.

FROM KAGBENI (NEPAL) TO TADUM OR TRADOM.

Authority and date.—Report of the Trigonometrical Branch of the Survey of India on the explorations made by M. H. and his son in 1892-93.

Epitome.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
	Kagbeni ..	..	..	..	A village in the north of Nepal consisting of 100 houses situated at the junction of the Kali Gandak river and a stream coming from Muktinath.
1	Kagbeni ..	Khamba Sambha.	15	15	Road along banks of Kali Gandak river. About 6 miles from Kagbeni a small stream coming from Damudarkund is crossed. The road here leaves the river,

ROUTE No. 20—*contd.*

the latter flowing through a very confined valley. To the west about 2 miles is a snowy range. There are forests of cedar below the snows. No other trees are to be found. Road level. Khamba Sambha is a village on a small stream.

2	Khamba Sambha.	Changrang ..	7½	22½	The Changi La pass, is crossed about 11,000 feet above sea level.
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A road, chiefly used by pilgrims from Muktinath by Damudarkund, crosses the Kali Gandak by a ford about 2 miles east of this, and joins the Kagbeni-Loh Mantang road at this place. It can be ridden over on horseback; the ground over which it passes is not rugged or high, but there is a scarcity of water, and no inhabitants are met after leaving Changrang village.

A village consisting of 30 houses and a fort, the winter residence of the Loh Mantang Raja.

3	Changrang ..	Loh Mantang ..	7½	30½	Road level. Loh Mantang is a town situated in the centre of a plain, about 11,905 feet above
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sea level, between two small streams, which meet a little before entering the Kali Gandak, distant about 2 miles. The plain is irrigated by channels.

Loh Mantang is enclosed by a wall of white earth and small stones about 6 feet thick and 14 feet high, forming a square with a side of $\frac{1}{4}$ mile in length and having an entrance by means of a gate to the east. In the centre is the Raja's palace, consisting of 4 stories and about 40 feet in height. There are 60 other houses, 2-storied and about 14 feet in height. Also a *gompa* containing 250 lamas. Drinking water is brought in by means of a canal. Numbers of traders from Tibet and Nepal come here. The trade in salt and grain does not extend far north.

4	Loh Mantang ..	Chhongra Sunda.	11	1½	The route at $\frac{1}{4}$ mile crosses a stream falling into the Gandak river and at $1\frac{1}{2}$ miles
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reaches the Shiar Chu, on the other side of which 1 mile further on there is a large village called Chosiar (25 or 30 houses) with rich corn-fields; a mile further on there is a second village of the same name. At $10\frac{1}{2}$ miles the Nub Chu, a confluent of the Shiar Chu, is reached $\frac{1}{4}$ mile west of Chhongra Sunda, there is a village called Na Dong.

5	Chhongra Sunda	Chokar Dong ..	7½	48½	The route at $\frac{3}{4}$ mile crosses over to the left bank of the Shiar-chu and at $3\frac{1}{2}$ miles
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reaches the summit of the Jang Lung La, the boundary between Nepal and Tibet. Thence it descends to Chokar Dong, well known for its trade: $\frac{1}{4}$ mile to the west, a stream runs through a plain where horses, goats and yaks are brought from Loh Mantang to graze. Grass plentiful; cow-dung fuel, no wood.

ROUTE No. 20—*concl'd.*

6	Chokar Dong..	Likche ferry ..	17½	66½	At 7 miles there is a Dopka village whence two roads fork; one goes to Charka Bhot in Nepal, and the other towards Lhatse Jong. From the former there is a branch to Damr p Ghat, a place of brisk trade between Loh Mantang, Jumla, and Mangu. At 9 miles, the route crosses a range of hills, that at about 1 mile to the south, sends off a branch at right angles to the route; a little beyond the 9th mile, the range branches off again, one arm going down to the Brahmaputra, and the other continuing parallel to the route and terminating at the 15th mile. On the left bank of the Tsangpo, the explorers found an encampment of 20 or 30 tents; but the Likche monastery which is on a hill, contains a few <i>pucca</i> houses. The river is about 450 yards wide at the Likche ferry and is crossed in leather boats.
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7	Likche ferry ..	Tradom ..	5	71½	The road is over heavy sand to Tradom. During the first 3 miles, several pools of water between hillocks of sand are passed.
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Tradom is a village consisting of a *gompa*, two rest-houses, a *tasam* and many tents. The *gompa* is built of stone and lies slightly above the level of the plain, but in a sheltered position. Below this, on the eastern side, are two rest-houses, also of stone and containing three or four rooms, respectively, the larger of the two having a court-yard surrounded by a 8-foot stone wall. The *tasam* is also built of stone and contains two rooms. The neighbouring *nalas*, where the tents are pitched, have a population of some 200. There is no cultivation in the neighbourhood; neither is any grain grown within 60 or 70 miles of the place. A small quantity is however stored in the monastic buildings. Yak and sheep are grazed here in thousands and the inhabitants mainly subsist on flesh. The whole place is under the orders of Lhasa.

Transport procurable—yak and about 20 Tibetan ponies. Supplies—grass, a little grain, sheep and wood. See Route No. 2, stage 115.

Route No. 21.

FROM LOH MANTANG TO RELA GOMPA.

Authority and date.—Report of the Trigonometrical Branch of the Survey of India on the explorations made by M. H. and his son in 1892-93.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
		Loh Mantang..			See Route No. 20, stage 3.

ROUTE No. 21—*concl'd.*

1	Loh Mantang.	Sam Jong ..	5½	5½	The route crosses two streams falling into the Gandak river, along the second of which is a path to Tradum (see Route No. 20, stage 4). At 3 miles summit of a range lying north-east and south-west is gained; thence the path descends to a stream, the right bank of which it follows to Sam Jong (15 to 20 houses). Good cultivation; soil black. The hills average about 7,000 feet with bare summits occasionally covered with grass.

2	Sam Jong ..	Camp ..	9½	14½	After crossing a stream at 1½ miles the route ascends 1½ miles to the summit of the range forming the Tibetan-Nepalese boundary; ascending for another 1½ miles, the route then descends ¾ mile to a cow-shed on a stream which is crossed. It then continues along a level with hills about 2 miles off on either side. Camp in an open plain. No habitations exist.

3	Camp ..	Camp ..	16	36	The route is through a pass in the hills and along an open track of country with hills on either side at a distance of from 2½ to 10 miles. At 10 miles a stream, which flows into the Tsang o, is crossed. Camp is open.

4	Camp ..	Rela Gomba ..	5½	41½	The route crosses the Sutia Changbo (23 yards wide and 4 feet deep) which 9 or 10 miles lower down, falls into the Tsangpo. At 5 miles, a mile to the right is the grazing-ground and nomad encampment (25 or 30 tents) called Dapka Jong.

There is a path along the Sutia Changbo to Nubri or Athara Kola, 9 stages to the south. From near Dakpa Jong a road runs east to the Tsangpo (12½ miles) at a place called Daduarap whence two roads fork, one east along the right bank to Dingri, the other south to Nubri. From Dudua Chongra on the opposite bank a road goes north-east to Saka Jong. See Route No. 72, stage 18.

Route No. 22.

FROM RASWAGARHI (NEPAL) TO TRADUM or TADUM.

Authority and date.—COLONEL MONTGOMERIE, R.E.; Report of Trigonometrical Survey, 1877.

Epitome.

This is the most important entrance into Tibet from Nepal. Raswagarhi is only 50 miles from Katmandu by a fairly good road fit for baggage

ROUTE No. 21—*contd.*

ponies or mules. The Nepalese use this route as far as Kirong when going on their annual mission to Lhasa. For the remainder of their route see Route No. 23.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
		Raswagarhi ..	..	..	A fort built by Jung Bahadur in 1855. Here a good-sized stream called the Lendi Chu coming from the north-east flows into the Gandak. This stream forms the boundary between the Lhasa and the Gurkha territories. A stone has been erected as a boundary-pillar.
1	Raswagarhi ..	Kirong ..	15½	15½	Road from last station level and along left bank of Gandak river. Pass Paimanaza, a police post, 2½ miles, and Thunsia village at 11½ miles. A small stream from the north-east flows into the Gandak, about a mile below Thunsia. Kirong is a small town with 15 or 20 shops. There is a fort here and a good-sized temple. Population estimated at 3,000 to 4,000 souls. Rice is imported and salt exported. Three crops are raised annually. Wheat and barley abundant. See Route No. 23.
2	Kirong ..	Thotang ..	11½	26½	Road from last station level except slight ascent at beginning. A corn mill stream is passed (at ¼ mile) which is bridged. Chougdia village is passed 2 miles, Jamding at 3¼ and Pang Sing at 3½. At 5 miles the Garu monastery stands on the other bank of the Gandak. At 6½ miles the Gandak is crossed by a bridge, and the road proceeds along the right bank. Majal village is passed at 6¾ miles. At 8 miles a good-sized stream is passed coming from the west, which flows into the Gandak. At 9 miles the Gandak is again crossed by a bridge called Rakma Yarsam. Tolls are levied here on all goods during September and October. The road now again proceeds along the left bank. At 10 miles the Tildifu, an immense rock bearing inscription, is passed, and at 11 miles a monastery is halfway up a hill on the other side of the river. A small stream from the east falls into the Gandak at this point.
		Thotang ..	18½	45½	Thotang is a village of which the houses are on both sides of the river Gandak. A small stream from the east here falls into the Gandak.
3	Thotang ..	Kolung ..	18½	45½	At 1 mile a small stream flowing from the north-east is crossed. At 1½ miles the Gandak is crossed by means of a bridge, and the road runs along the right bank.

ROUTE No. 22—*contd.*

A small stream is crossed at 2 miles and the ruins of Sinda fort at $2\frac{1}{2}$ miles. At $2\frac{1}{2}$ miles the Gandak is again crossed by a bridge, again 500 paces on, and another 500 paces on. At $3\frac{1}{2}$ miles a small stream flowing from the south-east is crossed; this stream is the boundary between the two districts, Kirong and Jonka Jong. Another stream is crossed at $4\frac{1}{2}$ miles and $\frac{1}{2}$ mile further on the Gandak by means of a bridge. Sangda village and a stream are passed at 5 miles, and another 500 yards further on. From this latter place a road leads in a northerly direction to Jonka Jong, which is about 24 miles distant, see Route No. 23, stage 12. At $7\frac{3}{4}$ miles Mun village is passed. Up to this point from the last stage the road is level, but after leaving Mun the ascent of the Lajuk Thumba mountain is begun and the road is very steep. The top of the pass is reached at $11\frac{1}{2}$ miles. (Height 15,400 feet above sea level.)

The descent of the mountain is also very steep. At the foot is a grazing-ground. The road after descending proceeds along the bank of the Buria Gandak stream. A good-sized stream flowing into it is crossed at $1\frac{1}{2}$ miles before arriving at Kolung. From the foot of the mountain to Kolung is a slight descent.

Kolung is a *chuksa* or grazing-ground on the right bank of Gandak. A stream called the Chike from the north-west here falls into the Gandak. From hence also a large road proceeds northwards, and crossing a high mountain leads into Tibet.

4	Kolung	..	Nakhu	..	$9\frac{1}{2}$	55	The road from the last station is level. At $2\frac{3}{4}$ miles a stream from the west is crossed, at $3\frac{3}{4}$

miles the Buria Gandak is crossed by a bridge and the road runs along the left bank. At $5\frac{1}{2}$ miles the large village of Chum or Nilua stands on the opposite or right bank of the stream. A small stream running from the east is also crossed at this place. At 6 miles a large temple is passed and at $6\frac{1}{2}$ miles the village of Pangdun. At 7 miles the Buria Gandak is crossed by a bridge at the village Phurue, and the road runs along the right bank. At $7\frac{1}{2}$ miles the village of Lahar stands on the other side of the river, and at $8\frac{1}{2}$ miles the small village of Nah is passed.

Nakhu is a large village on the right bank of the Buria Gandak. A stream from the north-west falls here into the Buria Gandak, and another from the opposite side at this place.

5	Nakhu	..	Chumzo	..	8	63	Road level for about $2\frac{1}{2}$ miles, then up for about 2 miles, and again level to end of stage.

At $\frac{1}{2}$ mile a monastery is passed; the country from hence is covered with jungle. At 1 mile a good-sized village called Jonghil, and at $1\frac{1}{2}$ miles the small village Paldon, are passed, and 500 paces farther on the village Chokang. The road from the latter place is very bad. At 4 miles a large stream called the Khimulung flowing into the Buria Gandak is passed. The village of Lohong and Panguare passed at $4\frac{1}{2}$ and $4\frac{1}{2}$. At the latter place a small stream from the south-east is crossed. From this point

ROUTE No. 22—*contd.*

the Buria Gandak assumes a south-west course, and then changes to a southerly direction. The road here leaves the river and runs in a westerly direction. At $7\frac{1}{2}$ miles the village of Churtan Phuk is reached. It stands between two small streams which have to be crossed. Chumze is a village.

6	Chumze	..	Rana	..	$7\frac{1}{2}$	$70\frac{1}{2}$	The road from the last stage is at first level. At $1\frac{1}{4}$ miles a corn mill stream is passed, and
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directly after the ascent of the Lha Chumuphr mountain is begun, the road being very steep. The top is reached at 3 miles. The road is then up and down for about 600 paces, and then the descent begins. At $6\frac{1}{4}$ miles a stream is reached and crossed which flows into the Nubri lower down, and at $6\frac{3}{4}$ miles the left bank of the Nubri river is reached: the road then runs along its left bank in a north-westerly direction. The road over the mountain is bad.

Rana is a village on the left bank of the Nubri river. The stream is bridged and a road leads *via* Nia and Bangsing to Nepal.

7	Rana	..	Lue	..	$12\frac{1}{4}$	$82\frac{1}{4}$	Road from last station level and runs along left bank of Nubri river. Two small streams are
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crossed in the first mile. Biga village passed at $1\frac{1}{2}$ miles, another stream $\frac{1}{4}$ mile further on. Lung village at 2 miles, a larger stream at $3\frac{1}{4}$ miles, and at $4\frac{1}{4}$ miles the Nubri is crossed by a bridge, and road runs along right bank. At $5\frac{1}{2}$ miles a large stream called the Gnok Cau from the north is crossed, and another stream a mile farther on. Namdul village is passed at 8 miles; a small stream at $8\frac{1}{4}$ miles, Luilaka village at 10 miles, the Haman stream from the west at 11 miles, and soon after the village of Shao is passed. Lue is a large village.

8	Lue	Babuk	..	$10\frac{1}{4}$	93	Road from last level. From Katmandu to Lue village jungle and forest are generally abundant,
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but at this place none was visible, and hence to Lhasa the mountain sides are bare and rocky. Two small streams are crossed at $1\frac{1}{4}$ and $2\frac{1}{4}$ miles respectively. The large village of Rue at 4 miles. A little further on, on the opposite side of the river, stands a large monastery at a distance of $\frac{1}{4}$ mile from the river. A stream is crossed at $5\frac{1}{4}$ miles and the Nubri stream by a bridge at 8 miles. At this latter place another small stream flows into the Nubri. The Nubri stream is again crossed by a bridge at Babuk. Babuk is a *chuksa* or grazing-ground which is at the junction of the Nubri and another large stream coming from an immense glacier $\frac{3}{4}$ of a mile to the west. From this place a road runs in a westerly direction to an important place called Muktinath, distant 5 days' journey. Babuk is on the right bank of the Nubri stream, which is here bridged. Babuk is a large mart for the exchange of goods.

9	Babuk	..	Somnath	..	$10\frac{1}{2}$	$103\frac{1}{2}$	The road from the last stage is at first level. At 2 miles the Nubri is crossed by a bridge call-
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ROUTE No. 22—*contd.*

ed Dilung. At $3\frac{1}{2}$ miles the ascent of the Gya'a Salang Mountain is commenced, the road being very steep. The top of the mountain is reached at 5 miles; this mountain forms the boundary between the Lhasa and Gurkha territories. After descending the mountain a small stream is passed at 7 miles, and another stream at a village called Sangjumba at $9\frac{1}{2}$ miles. Gya-la Salang is 16,700 feet above the sea. Somnath Camp is at the junction of two streams.

10	Somnath ..	Baruduksum ..	10	113 $\frac{1}{2}$	The road at first ascends slightly and crosses a stream at 3 miles. The ascent of the Ghola
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mountain is then commenced, the road being very steep. The top is reached at $5\frac{1}{2}$ miles. Height 16,600 feet above sea. Baruduksum is a halting place for travellers on the left bank of a stream called Shorto-Sangpo.

11	Baruduksum ..	Zunga Dung or Rebo.	8 $\frac{1}{2}$	122 $\frac{1}{2}$	Road from last station level along left bank of Shorta-Sangpo river. At 2 miles a large
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stream falls into the river at the other side. At 5 miles a small stream from the west is crossed. Zunga Dung is a large grazing-ground.

12	Zunga Dung ..	Tala Labrang..	16 $\frac{1}{2}$	138 $\frac{1}{2}$	Road level and at first along left bank of the Shorta-Sangpo river. At $7\frac{1}{2}$ miles on the op-
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posite bank of river stands an isolated hill called Thazam (well known). At $10\frac{1}{2}$ miles the road leaves the bank of the river Shorta-Sangpo and runs in a north-west direction. This river runs into the Tsangpo at a distance of 7 miles from this place. At Gangab, $15\frac{1}{2}$ miles, a stream is crossed, which flows into the Tsangpo, 3 miles ahead. Tala Labrang is a camp.

13	Tala Labrang..	Rela Gompa ..	13 $\frac{1}{2}$	151 $\frac{1}{2}$	Road from last station level. At $2\frac{1}{2}$ miles the Humulung stream is crossed at 3 miles. Yak
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Kui or Mala Labrang, a large camp is passed. The Tsangpo is distant about $1\frac{1}{2}$ miles north-east. At $4\frac{1}{2}$ miles a small branch of the Humulung is crossed. At $8\frac{1}{2}$ Chabdan, an old monastery about a mile from the Tsangpo, is passed. At $10\frac{3}{4}$ miles the bank of the river itself is reached, and the road runs along its right bank. Rela Gompa is a large monastery on the right bank of the Tsangpo. See Route No. 21, stage 4.

14	Rela Gompa ..	Kindong ..	3 $\frac{1}{2}$	155 $\frac{1}{2}$	Road from last station level at first, then slightly up and down. At this point the road
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divides one road proceeding along the bank of the Tsangpo to Tradom *via* Likehe ford (see Route No. 20), the other leading to the right to Munaduga Ghât.

ROUTE No. 22—*concl'd.*

15	Kindong	..	Munaduga Ghat	14½	159½	On the right bank of the Tsangpo river. Boats formed of a frame work of wood covered with leather convey people and goods across to Shricapo.
16	Munaduga	..	Jangthankdong Camp.	12½	172	The road is at first level and proceeds along the right bank of the Tsangpo. Soon, however, the ascent of the Takola mountain is commenced. The summit is reached at 7½ miles; the descent on the other side is completed at 10½ miles.
17	Jangthankdong		Likche Gampa	14½	186½	The road from the last station is level. A small stream from the south-east is crossed at 1 mile. It flows into the Tsangpo, 2 miles ahead. Three small "tarns" on the right side of the right road are passed in the first three miles. See Route No. 20.
18	Likche	..	Tradom	6	194½	See Route No. 2, stage 115, and Route No. 20, stage 7.

There is a much shorter route from Rela to Tra-dom side, Route No. 72, stages 18 to 20.

Route No. 23.

FROM LHATSE JONG TO KIRONG *viâ* DINGRI AND JONKA JONG.

Authority and date.—CAPTAIN C. G. RAWLING, 1905, and Explorations in Tibet published under the direction of the Surveyor-General of India, 1887.

Epitome.

Up to Dingri the road is reported to be level and good, with the exception of the La-ga-lung La. At each of the stages mentioned, supplies of grain, *choosa* and fuel can be obtained though only in small quantities.

From Dingri to Kirong the general direction as far as Jonka Jong is westerly and from Jonka Jong to Kirong near the Nepal border southerly.

Dingri is a place of some importance as the trade of Nepal from the various passes on the frontier passes through it and Sakya Jong to Shigatse.

ROUTE No. 23—*contd.*

It was by this route that the Chinese invaded Nepal in the war of 1792. The road is good throughout excepting for stage 12 over the Che-chu La.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
..	..	Lhatse Jong ..	..	..	See Route No. 2, stage 97.
1	Lhatse ..	To	8	8	Leaving Lhatse Jong the path follows the right bank of the Tsangpo to the Chinese post house
at To, see Route No. 72, stage 1. From To a regular post is run to Dingri; the postmaster at Dingri giving the following stages:—					
2	To	Traya ..	25	33	....
3	Traya ..	Lolo ..	..	..	Crossing the La-ga-lung La on the way. This pass is usually closed by snow for two or
three months during the winter.					
4	Lolo ..	Shiga Jong ..	..	..	....
5	Shiga Jong ..	Mino ..	..	..	....
6	Mino ..	Dingri ..	..	..	Dingri is a town generally known as Dingri Mir-dan from the large open plain in which it stands;
it is also sometimes called Dingri Ganga. The town has 250 houses and is 13,900 feet above the sea. North, and quite close to the town stands the Dingri Khar (fort) on a low isolated hill. There is a small garrison of Bhutia soldiers with one gun.					
7	Dingri ..	Dakcho or Duck-cha.	11½	..	The road passes through the Tokchu village and at 4½ miles reaches the right bank of the

ROUTE No. 23—*contd.*

Khangju-Changbo (the name of the Dingri-Changbo west of Dingri). From this onwards the route is parallel with the right bank of the river. At about $6\frac{1}{2}$ miles spurs from the northern and southern ranges reach to within $\frac{1}{2}$ mile of the river-bed. The road passes Chamda village and one mile beyond it a hot spring with a high reputation for curative properties. Camp at the small village of Dakcho. The villages on this march grow luxuriant crops of barley, peas, and turnips. Road good throughout. From here a road runs to Kaju in two marches *via* Dunga; the going is said to be level and good, and each march about 15 miles. See Route 72, stage 8.

8	Dakcho	..	Puri	..	20	..	The road continues along the river past Nilum and Gunjo villages to the junction of the
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Phongju Changbo with the Makpato Changbo; it then crosses the latter by a ford 15 paces wide and 2 feet deep, and follows up the left bank to the large village of Makpamau and thence to Puri.

From the ford a road leads northwards to Rakha Thazung Tarjum (on the route from Shigatse to Leh). Country and road as before.

9	Puri	..	Makpato	..	10	..	The road continues along the river past the small villages of Simi and Tokchu to
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Makpato, a village of 20 houses, surrounded by a walled enclosure, 10 to 12 feet high. Country and road as before, but the valley becomes extremely contracted after passing Tokchu.

10	Makpato	..	Digur	..	26 $\frac{1}{2}$..	The road continues along the left bank of the Makpato-Changbo to the foot of a
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spur descending from the Lungo La pass. It then crosses the spur and descends through Digurthanka plain to Digur. This plain, which on the east of Digur, extends 7 or 8 miles on both sides of the road, affords abundant pasturage for large herds of cattle, ponies, yaks, sheep and goats which are brought to graze from as far north as Dokthol Province. From Digur a winter road leads down to Kirong and a good road runs to Kaju (see Route No. 72).

Good road throughout.

11	Digur	..	Palgu Tso	..	18	..	After 3 miles, the road reaches the left bank of the Pungro Chu (which falls into the
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south-east corner of the Palgu Tso) which it continues along till it turns north-west; it then leaves it and crosses a sandy tract to the south-west corner of the lake which lies east and west and is about 9 miles in length with a width of 4 miles in the broadest part. Water clear and sweet. Road good throughout.

ROUTE No. 23—*concl'd.*

12	Palgu Tso ..	Jonka Jong ..	20½	..	Shortly after starting the road enters a narrow gorge, whence a road leads north-
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wards to Dokthol, and follows it up to the Chharkiu (Chechu) La, the last two miles being over snow. Descending westwards from the pass along a ravine and again ascending a spur, the road proceeds along its crest and then descends to the junction of two water-courses. It crosses the northern water-course and follows the right bank of the combined stream to Jonka Jong. The road is bad throughout. Jonka Jong is at the confluence of the above stream and the Satu Changbo from the north-west. It is about 400 paces square and is surrounded by a loopholed mud and stone wall 5 feet thick and 20 to 30 feet high. It is the residence of two *jo gpons* whose authority extends eastwards to Digur, north and west for ten, and southwards for 20 miles. Within the fort are some 15 or 20 shops and 50 houses and a *g.mpa* of about 100 lamas. The inhabitants number five or six hundred. The country for a mile or two to the north appears well-cultivated. From Jonka Jong a road leads north-west to Tradom and another west *viâ* the Satu Changbo to Nubri.

13	Jonka Jong ..	Gunda ..	17	..	The road follows the Jonka Changbo, about ½ to one mile from it at first, but afterwards close to the river which is crossed and re-crossed by wooden bridges. No cultivation is met with during this stage. The river at Gunda is about 2½ feet deep. Road fairly good.
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14	Gunda ..	Todang ..	12½	..	Route lies along the river which is crossed and re-crossed several times by wooden bridges. Road as before. At 7 miles Route No. 22 joins in.
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15	Todang ..	Pangsing ..	9½	..	The route continues along the left bank of the river past a chauki and Rakma (which lies on the right bank in the angle formed by a stream from the north-west) to the large village of Pangsing. The first cultivation after leaving Jonka Jong is met with at Rakma below which the valley opens out to the east and is pretty extensively cultivated from about a mile north of Pangsing. Barley, turnips and potatoes are largely grown. Road good.
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16	Pangsing ..	Kirong ..	3½	..	The road proceeds parallel to the river across a small stream from the north to Kirong. Road good. Kirong is a town of some 3,000 to 4,000 souls. It contains a fort and some 15 or 20 shops. Three crops are raised annually. See Route No. 22.
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Route No. 24.

FROM SHIGATSE TO KATMANDU (NEPAL).

Authority and date.—MAJOR MONTGOMERIE, R.E.; Great Trigonometrical Survey, 1871-72.

Epitome.

A good road as far as Dingri, but from there to Banspati it is bad and not passable by yaks and ponies. The loads are mostly carried by men.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
		Shigatse ..	..	..	See Route No. 2, stage 91.
1	Shigatse ..	Changma ..	8-7	8-7	A village.
2	Changma ..	Shabki Chu ..	22-4	31-3	Numbers of villages were seen on and off the road. The country is fertile. Nangla hill
					is passed. Shabki Chu river is 65 paces wide and 4 feet deep, flowing down into the Tsangpo.
3	Shabki Chu ..	Lingbochen ..	4-4	35-7	....
4	Lingbochen ..	Puksum ..	3-3	39-2	A stream.
5	Puksum ..	Chong La ..	11-7	51-1	A pass.
6	Chong La ..	Shakia Jong ..	8-1	59-2	There is a large monastery at this place; it stands on a low spur. The town lies at the

foot of the monastery and is about half the size of the city of Shigatse. About 50 shops in the town are kept by Niwars from Nepal, all the other shops being kept by Bhutias. There is a large amount of cultivation around Shakia, though it is 13,900 feet above the sea.

ROUTE No. 24—*contd.*

7	Shakia Jong ..	Donga La Pass.	..	12-6	72	A mountain pass. From here we descend into the ground drained by the Arun river. Ata La
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hill is passed *en route*.

8	Donga La ..	Pil	15-3	87-3	Cross the Linaschu stream, about 5 miles from Pil. Pil is a village.
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9	Pil ..	Chaiokar	25	112-3	From Pil the route runs in a south-westerly direction along the bank of this river till
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about 5 miles from Chaiokar, where the Hangtang Chu or Arun river emerges from it. The road now takes a western direction, following the northern bank. Chaiokar is a village on the left bank of the Phungtu or Dingri Chu.

10	Chaiokar ..	Phungtu	15-2	127-5	A village with a monastery.
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11	Phungtu ..	Sakar Chu	Continuing westward along the Dingri Chu river, the explorer reached the Sakar
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Chu river, a branch of the Dingri Chu. The Sakar Jong fort is about 8 miles north of the junction, and is the residence of a Lhasa magistrate. The Ghurkas in 1854 advanced as far as this point when they invaded Tibet.

12	Sakar Chu ..	Chakor	17	144-5	Road runs along northern bank of the river for about 5 miles; then crosses it and proceeds along the southern bank. The river is crossed by means of a bridge, 75 paces in length. Chakor is a village.
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13	Chakor ..	Dingri	18-1	162-6	A town generally known as Dingri Mirdan from the large open plain in which it stands; it
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is also sometimes called Dingri Ganga. The town has about 250 houses and is 13,900 feet above the sea. North and quite close to the town stands the Dingri Khar (Fort) on a low isolated hill. There is a small garrison of Bhutia soldiers with one gun. From Dingri there is a road, said to be a good one, which runs in a south-easterly direction till it meets the Arun river; it then follows the banks of the Arun river in a southerly direction till it joins the Taplang Jong and Katmandu road about Chainpur. See Route No. 23.

ROUTE No. 24—*contd.*

14	Dingri ..	Thung La pass	19-2	182	Road from the last station passes at first through a wide and all but level tract,
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but the ground gets rougher as Thung La mountain is approached. In the winter this pass is covered with ice and snow. It is 18,460 feet above the sea. From this place there is said to be a good road which joins the Taplang Jong and Katmandu road from Charku village.

15	Thung La ..	Pagu stream ..	16-2	198-2	Road rugged and difficult. The Pagu stream is fordable.
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16	Pagu stream ..	Thakialing ..	4-7	203-1	Road as above, along the banks of the Bhutia Kosi stream. Thakialing is a village.
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17	Thakialing ..	Nilam Jong ..	10-7	214	Road as above and by the banks of the Bhutia Kosi, which it crosses. Nilam Jong is a village, 250 houses, standing 13,900 feet above the sea. It being the first Tibetan town on the road from Nepal, great vigilance is demanded and persons and baggage are carefully searched.
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18	Nilam Jong ..	Choksum ..	8-3	222-3	A village. River crossed by a bridge. The river just below the village runs in a gigantic chasm, the sides of which are so close to one another that a bridge of 24 paces is sufficient to span it. Near this bridge the precipices are so impracticable that the path has of necessity to be supported on iron pegs let into the face of the rock, the path being formed by bars of iron and slabs of stone stretching from peg to peg and covered with earth. This path is in no place more than 18 inches and often not more than 9 inches in width and is carried on more than $\frac{1}{2}$ of a mile (775 paces) along the face of the cliff at some 1,500 feet above the river. It is of course quite impassable for ponies and yaks, and but few sheep and goats even go over it, though it is constantly passed by men with loads.
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19	Choksum ..	Kanglank hill	25	247-3	Road by banks of Bhutia Kosi, which it crosses by bridges several times.
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20	Kanglank ..	Listi ..	3-4	250-7	A village between Nelam and Listi. The road follows the general course of the Bhutia Kosi and is crossed 15 times by means of three iron and 11 wooden bridges each from 24 to 60 paces in length.
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ROUTE No. 24—*concl'd.*

21	Listi ..	Basingka La ..	5-5	256-4	A pass.
22	Basingka La	Banspati ..	9-4	266	A village.
23	Banspati ..	Ghetar ..	6-4	272-4	A village.
24	Ghetar	Chantaria Lek	13-7	286-3	Pass Sipa village at 2 miles. The Mulanchi is crossed there. Chantaria Lek is a village and hill.
25	Chantaria ..	Katmandu ..	13	299-3	Pass Kabtar village at 3 miles and Chabeli at 9 miles. Katmandu is the capital of Nepal, there are plenty of provisions and water. See military report on Nepal.

Route No. 25.

FROM LAMJUNG (NEPAL) TO KHARTA.

Authority and date.—Survey of India, account of the explorations made by G. S. S. in 1880-81.

Epitome.

As far as can be ascertained this is only a rocky track, but it is used by the local people. Distances approximate only.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
1	Lamjung ..	Teju Chu ..	7	7	At 3 miles from Lamjung (where there is a small shed for travellers) the Logama lake ($\frac{1}{2}$ of a

ROUTE No. 25—*concl'd.*

square mile and surrounded by mountains) is reached. Close by the track crosses the Poppe range, the boundary between Nepal and Tibet, by a pass which is probably 15,000 feet. The route then descends to the Teju Chu or Kama stream, over which there is a bridge of planks. The stream is 10 feet wide and the current is swift. The track is rocky and the explorer met with much snow in July. Hereabouts there is a forest of pines from which timber is cut for use at Dingri and other places, and carried away on yaks.

2	Teju Chu ..	Pisa Tapu ..	8	15	A small cave.
3	Pisa Tapu ..	Chambu Jesa	3	18	The route passes a well-known grazing place for yaks in the rains.
4	Chambu Jesa	Kharta ..	15	33	Between Chambu Jesa and Kharta there are three lakes and the road is through a defile

for the greater part of the way. The country all round is very desolate and bare. The highest point on the road is Chukarpo at 5 miles.

Kharta is surrounded by hills on all sides. Ten miles north of Kharta on the Dingri road is Nini Gompa, a nunnery. Dingri is 5 or 6 marches from Kharta but there is said to be a short cut which allows messengers to reach Dingri in three days.

Route No. 26.

FROM WALUNGSAMGOLA (NEPAL) TO SHIGATSE *via* NILA LA AND LANGULUNG LA.

Authority and date.—MAJOR MONTGOMERIE, R.E.; Report of Great Trigonometrical Survey of India, 1871-72.

Epitome.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
1	Walungamgola	Tipta La ..	17-6	17-6	Tipta La is on the border between Nepal and Tibet. It stands on the watershed of a very high range that runs nearly east and west, forming the boundry between Nepal and Tibet.
2	Tipta La ..	Tashirak Chu ..	11-7	29-5	The road from Tipta La to Tashirak is a difficult one, the ground north of the pass being

ROUTE No. 26—*contd.*

very elevated and barren, so that both food and fuel had to be carried on yaks for the use of the party.

Tashirak is a large standing Bhutia encampment on a feeder of the Arun river, which rises in a glacier to the west; it is 15,000 feet above the sea. Route from Tashirak to Yollong see Route No. 27.

3	Tashirak Chu ..	Nila La pass ..	11-1	40-6	A mountain pass.
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4	Nila La pass ..	Shara ..	4-7	45-5	After passing the Nila La pass a large lama monastery is passed. The Shara village consists of some 50 houses, and is under a Thanadar of the Tinki or Tinka district.
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5	Shara ..	Lamadong	Before reaching this place the explorer had latterly seen no cultivation except that of
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Indian corn in small quantities; but at Lamadong itself there was a good deal of wheat and peas, and round about several other villages could be seen well cultivated. All these villages were on or near the banks of the great eastern branch of the Arun river called the Khantongiri river, which comes from the west. Lamadong is a village of 50 or 60 houses.

6	Lamadong ..	Tashichirang ..	33-5	79-2	The day after leaving Lamadong the explorer arrived at another village with plenty of
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cultivation, all tending to show that he had reached a warmer climate. The next day he crossed the Tinki La pass, and after a trying march reached the village of Tashichirang on the banks of the Chomto Dong lake, which is a fine sheet of water about 20 miles in length by 16 miles in breadth at an elevation of 14,700 feet above the sea. The water is clear and good to drink. No signs of an outlet to the lake can be discovered, and the inhabitants declare there is none. This lake forms a portion of the boundary between the Sikkim and Tibet territories,—the Sikkim territory lying to the east, that of Tibet to the west of the lake.

7	Tashichirang.	Nangji .	13	92-2	A Sikkim village, which though it has but 50 houses, boasts of a wonderful number of
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dogs.

8	Nangji ..	Chajong ..	3	95-2	Another Sikkim village. Hot springs at this place. Four reservoirs have been built to
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catch the waters of these springs and have a high reputation for their curative properties. The place swarmed with antelopes, which are quite tame, and considered sacred. Chajong is 15,000 feet above the sea.

ROUTE No. 26—*concl'd.*

9	Chajong	..	Langulung La pass.	16-1	111-3	This pass has quantities of glacier ice close down to it, being itself 16,200 feet above the sea.
10	Langulung La..	Thak	..	..	..	A village.
11	Thak	..	Ruksum	14-7 from Chajong	126-2	A village on the banks of a stream.
12	Ruksum	..	Sai Jong	..	..	A village surrounded by cultivation.
13	Sai Jong	..	Chota Tapu or Darcha.	8-3 from Ruksum.	134-5	A village on the banks of the Sai Jong stream, which comes from a great distance, rising in Sikkim.
14	Chota Tapu	..	Gyaling La pass	4	381-5	A pass covered with snow
15	Gyaling La	..	Balu Koti	..	..	A village of 20 houses with a good deal of cultivation around it.
16	Balu Koti	..	Shigatse	25 from Gyaling.	163-5	A good sized town with a market place. See Route No. 2 stage 91.

Route No. 27.

FROM JONGRI (SIKKIM) TO TASHIRAK *via* KANLACHEM PASS.*Authority and date.*—Hooker's Himalayan Journals, 1872.*Epitome.*

No. o stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate-	Total.	
		Jongri	..	..	Jongri consists of two stone huts on the bleak face of a spur.

ROUTE No. 27—*concl'd.*

1	Jongri ..	Yallong ..	..	..	From Jongri to Yallong in Nepal by the King-lanamo pass (15,000 feet high) is two days' march.
2	Yallong ..	Foot of Choongerma pass.	..	..	One day's march descending to 10,000 feet.
3	Choongerma pass.	Kambachen ..	..	..	Cross Choongeram pass (15,260 feet), and proceed to Kambachen (11,900 feet).
4	Kambachen ..	Yangma ..	..	..	Cross Nango pass (15,770 feet), and camp at Yangma river (11,000 feet).
5	Yangma ..	Foot of Kanglachem pass.	..	..	Ascend to foot of Kanglachem pass, and camp at 15,000 feet.
6	Foot of pass ..	Kanglachem pass.	..	..	Cross Kanglachem pass probably 16,500 feet high.
7	Kanglachem ..	Tashirak ..	..	..	It is said to be three marches from Kanglachem pass to Tashirak Custom House, and

that two more snowy passes are crossed. This route from Jongri to Tashirak gives only 5 miles as the crow flies to be accomplished each day, but I assume fully 14 of road distance, the labour spent in which would accomplish fully 30 over good roads. Four snowed peaks at least are crossed, all above 15,000 feet; and after the first day the path does not descend below, 1,000 feet. By this route about one-third of the circuit of Kinchinjunga is accomplished.

To reach Tashirak by the eastern route from Yoksun being a journey of about 25 days, requires a long detour to the southward and eastward, and afterwards the ascent of the Teesta valley to Kongra Lama and so north to the Tibetan Arun. See Route No. 30.

Route No. 28.

FROM CHILUNG (NEPAL) TO SHIGATSE.

Authority and date.—Survey of India account of the journey of Babu D-C-S- and Lama O-G-U, during 1879.

Exiome.

This route lies but a few miles west and north of Kangchanjunga and the pass into Tibet is higher and more difficult than either the Tipta La (see Route No. 26) or the Kanglachen La (see route No. 27) which lie further to the west. The pass is not much used now, but was used by the Nepalese during their invasion of Tibet in 1792. It is only open for 3 or 4 months of the year.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Chilung ..	Pangfekum ..	7	7	From Chilung (15,000 feet) the route runs due north up a moraine for 2 miles and then on to a glacier of considerable width. From Chilung the slope is easy.
2	Pangfekum ..	Lacher ..	5	12	The route continues to ascend the glacier and at 2 miles reaches Ngyame. Then it passes over a long line of loose blocks of rock, the central moraine, to the top of the Chugtang La at 4 miles. The ridge is as narrow as a knife edge and the pass (about 11,000 feet) is a mere cleft, a passage, between mighty walls, which bristle with innumerable needles of rock like great teeth. The descent is very steep along a glacier.
3	Lacher ..	Giarni-tho-tho	5	17	The path descends along an easy slope. The Chinese built a fort here after the Nepal war of 1729. Close by to the east there is a small lake
4	Giarni-tho-tho..	Chorten Nyima Lacher.	6	23	At 3 miles cross the Zami river flowing swiftly in three channels, the largest being 20 feet wide. The river bed is nearly a mile wide, and all about the river are grazing lands. From the Zami river there is an ascent of 3 miles to Chorten Nyima Lacher. See Route No. 30,

ROUTE No. 28—*concl'd.*

5	Chorten Nyima Lacher,	Thekong	..	15	38	Ascend an easy slope for 3 miles to the summit of the Chorten Nyima Kang La
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(Chorten Nima La) crossing a stream flowing westwards. A lake, 2 square miles in extent, is seen to the west of the route at 1 mile below the pass. From the pass the track traverses a glacier to the nearly deserted monastery of Chorten Nyima (Choten Nima) at 5 miles. See Route No. 30.

From close to the monastery, a stream flows from beneath the glacier to the north. The road follows the left bank for 8 or 9 miles over a barren dreary waste till it meets one of the great trade routes from the Tipta La to Shigatse at 1 mile west of the walled village of Thekong (Route No. 26). 2 miles west of Thekong, the stream falls into the Yarru Tsangpo (Yaru Chu). On both sides of the stream, at and below Thekong there is an extensive area of cultivated land on which barley is grown.

6	Thekong	..	Tanglung	12	50	The route lies over open plains. Up to Thekong the direction is north but it is now east.
7	Tanglung	..	Targye	11½	61½	The Yaru Chu is forded with some difficulty at 4 miles and is crossed twice more in the next 1½ miles. Serding monastery on a hillock above the right bank is passed <i>en route</i> . The road is fairly level. See Route No. 29.

8	Targye	..	Kuma	13	74½	} See Route No. 29, stages 3 to 10.
9	Kuma	..	Naptha	11	85½	
10	Naptha	..	Phara	14	99½	
11	Phara	..	Rhe Jong	5	104½	
12	Rhe Jong	..	Dozan	4½	109	
13	Dozan	..	Nar ..	6½	115½	
14	Nar ..	..	Jong Lugri	11	126½
15	Jong Lugri	..	Shigatse	11½	138	

Route No. 29.

FROM GIAOGONG TO SHIGATSE *via* RHE JONG.

Authority and date.—CAPTAIN FITZGERALD, 18th Tiwana Lancers,
February 1906.

Epitome.

No road, but a good track. Passes through easy hills. Few supplies and very little grazing. No fuel except yak dung. Very thinly populated.

ROUTE No. 29—*contd.*

About half way to the Rhe Jong there is a small plain, excellent camping grounds, with very fair grazing, small quantities of supplies and fuel.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Giaogong ..	Khamba Jong 15,200 feet.	17	17	The track first goes north-east then north over an undulating country till it reaches the Gyamtso Nang lake, it proceeds around the west side of the lake then ascends to the Kongra La pass which is marked by a heap of stones.
2	Khamba Jong..	Targye ..	8	25	The road goes westward across the Khamba plain along the foot of the mountains.
Then it gradually descends to the river which is crossed by a rickety bridge. The river is fordable in summer time. Targye is about half a mile from the bridge and is a small village with several other villages close by, from which supplies could be obtained. Good water from stream. Ample camping ground in the flat cultivated fields. Transport procurable in large numbers. One road straight up the valley to the east leads direct to Trasang, 17 miles.					
3	Targye ..	Kuma, 15,000 feet	13	38	The road goes for about a mile and a half through a plain then ascends steeply to a low pass from which it descends to a valley about 8 miles long by 6 miles broad. The road runs through this valley and where it narrows, there is a Tibetan defence wall probably built in 1903. A little further on is Kuma, a small village (height 15,000'). Supplies and fuel very scarce. Water from stream. A few transport animals available.
4	Kuma ..	Naptha ..	11	49	From Kuma, the road crossing the river at the 2nd mile continues on down the valley, which gradually opens out till at its widest part it is about 3 miles broad. Down the centre of the valley runs the river which in summer can

ROUTE No. 29—*contd.*

be forded and in the winter is crossed on the ice. The road keeps under the foot of the hills to the west to Naptha. There is an alternate road which leaves Kuma and goes through the hills on the east side. Naptha is a small sheep pen, occupied in summer but deserted in winter. No supplies, wood, or transport. Water from stream.

5	Naptha	..	Phara, 15,250 feet.	14	63	From Naptha the road or as it is here, a very rough track, goes into a small valley
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then opens out on to a small plateau (17,100 feet) above sea level. This plateau is really the Chang La pass from which the road descends by an easy gradient to a narrow valley, leaving the mountain of Somotunga to the east. Phara has no village, only a few shepherds' huts. Water plentiful, supplies *nil*. No fuel except yak dung. On hills around were large number of yak and hundreds of sheep. Grazing good. In summer months it is evidently a favourite grazing place judging from the many herders' huts on the mountain side. Camp must be made here as this is a very trying march and has no halting places.

6	Phara	..	Rhe Jong, 14,600 feet.	5	6	The road leads through the village of Chupsa at one mile. It then leads down a very
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narrow valley with a gradual descent to Rhe Jong. Rhe is a village, monastery, and *jong* standing on a small hill about 1,000 feet above the village. Camping-ground good. Very fair grazing. Water plentiful, supplies scarce. Very little fuel except yak dung.

7	Rhe Jong	..	Dozan, 4,300 feet.	4½	72½	The first three miles are across a nice open plain, close to the Reju river and on the left
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bank. At Dozan the road crosses to the right bank of the river.

Dozan is a small village with cultivation all round. Supplies scarce. A little fuel; and a good number of transport animals, chiefly yaks. Good camping ground. Very fair grazing. Water plentiful, supplies scarce. Water from river. No halt should be made at this place as Nar is only 6½ miles distant.

8	Dozan	..	Nar, 14,820 feet	6½	79	The road leads up a fair gradient to the Chumi Tumpo La (18,500 feet), then
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down a steep narrow valley (not difficult for transport) for about 3 miles to Nar. No village but a few scattered houses.

Supplies very scarce. Good water from stream. Fuel obtainable and a small number of transport animals.

9	Nar	..	Jong Lugri, 13,100 feet.	11	90	Road leads down a side valley running due north, gradually descending to Jong Lugri.
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ROUTE No. 29—*concl'd.*

Good camping grounds along the banks of the stream. Supplies procurable from surrounding villages. Good water in river. Fuel obtainable and transport animals, chiefly mules or ponies, in moderate quantities.

10	Jong Lugri ..	Shigatse ..	11½	101½	The road leads north across a broad and well watered valley, passing on the left

at about 1½ miles distant, the village and monastery of Natong, which contains one of the few printing presses in Tibet. From the valley the road ascends to the Gia La and descending goes across the valley to the east to the city of Shigatse. See Route No. 2, stage 91, also the Gazetteer by Rawling.

Route No. 30.

FROM CHOTEN NIMA LA TO GIAOGONG *via* VALLEY OF YARU CHU AND KONGRA LA.

Authority and date.—LIEUTENANT W. F. O'CONNOR, R.A., September 1896.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
	Choten Nima La	....	..	..	See Route 28, stages 4 and 8.
1	Choten Nim. La	Camp on Tang Lung near Choten Nima monastery.	9	9	From the summit of the Choten Nima pass the descent into Tibet is very difficult. First due

north over an easy glacier for ½ mile; then the only way down the valley is between 2 glaciers over a series of ice hummocks thinly covered with shingle which slips under one's feet at every step. After ½ mile of this a small lake is reached, and the glacier stops (elevation 18,000'). After this, road offers no particular difficulties, but the descent is steep till from 17,000 feet (where a tributary stream joins from south-west) the valley runs almost level for 8 or 10 miles, when the stream debouches into the plain of the Yaru Chu. On either side of the stream are flat-topped moraines and beyond them a bare rolling country, sloping gradually from the snow peaks of the frontier to the great plain of the Yaru Chu to the north. The stream is easily fordable at any place, and there is plenty of scrub for fuel by the bank. The hills are absolutely bare, except for a little grass lower down, after an elevation of 16,000 feet.

ROUTE No. 30—*contd.*

Camp may be pitched by the bed of the stream near the Choten Nima monastery, which is a place of great sanctity, constantly visited by pilgrims from all parts of Tibet, and the only inhabitant of which for most of the year is an old blind lama. It consists of 2 flat-roofed, square, stone-buildings about 20 feet high and 24 feet square, surrounded by a number of smaller out-buildings. It could be strongly defended against an attack from the north and west, but is commanded by a flat-topped moraine in rear. During the summer months large numbers of yaks and sheep are brought up this valley to graze, but by the end of August they are all taken down into the plain below.

There is great abundance of game here—burrhel, goa and hares, all very tame, as they are never molested by the Tibetans owing to the great sanctity of the neighbourhood. From the surrounding hills fine views may be obtained of this part of Tibet. The country is absolutely bare and of a general red colour. The spurs from the frontier slope down to the plain below in long unbroken slopes, bare of rocks or bushes, and looking as if they had been planed off. The Yaru Chu is seen below winding away to the west as far as the eye can reach; it is said then to turn south, forcing its way through the mountains of the Nepal frontier and is afterwards known as the Arun and lower down as the Kosi river. In the plain which it waters are several important towns—Tinki Jong, Kamba Jong, Geru and Tang Lung being the chief ones. In the middle of the plain some small conical hills rise, beyond which a glimpse may be had of the Tsomo Tel Tung lake. Beyond this plain the whole country consists of low hills, the tops of which are seen to stretch away to the north bounded by the snow peaks of the Central Himalayan chain. Looking westward the snows of the Nepal frontier are seen, peak beyond peak, for many miles. The atmosphere is extraordinarily clear, and distant objects stand out very plainly.

2	Tang-Lung ..	Camp No. 1 ..	9	18	From Choten Nima monastery turn east-north-east and travel along the slope of the
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Hills crossing one or two small streams *en route*. This part of the country presents no features of interest, as the spurs are absolutely bare and smooth running down in an unbroken slope to the valley below. There is a little grass up the beds of the streams, where the yaks are brought to graze, and very large herds of these animals may be seen from time to time in the plain below. Flocks of burrhel and goa are frequent on this part of the mountains. The frontier line is an impassable wall of snow and glacier.

The camping place is in the bed of a stream, where there is a little scrub for use as fuel.

3	Camp No. 1 ..	Camp No. 2 ..	15	33	Still continue in same general direction over a similar country, gently, undulating, until
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the camping place is reached at an elevation of 15,350 feet, where there are some circular stone walls constituting a sheep-fold, and where during the summer enormous flocks of sheep are fed—3,000 or 4,000 sheep in a flock.

ROUTE No. 30—*concl'd.*

There is a stream of good water here and abundance of game. Some of these shepherds are detailed by the Kamba Jong officials to watch the passes along the frontier, and to give instant information in case of any stranger crossing.

4	Camp No. 2 ..	Giaogong ..	16	49	Continue east-north-east for 2 miles gradually rising on to the top of a long spur, when
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direction is changed to the south-east and the track rises gradually to the top of an easy pass (16,300 feet), after which the country is undulating for another 2 miles and another small pass (the Sebu La or Sobu-la La) is crossed (16,400 feet). Soon after this a long level plain is reached, at the end of which a third small pass (the Kongra La or Kongra Lama La) is marked by heaps of stones and flags. This pass appears to be on the proper watershed between Sikkim and Tibet, as a small stream flows from the summit into the Gyamtso Nang lake, and hence into the Lachen near Giaogong. From here the road descends to the banks of a lake (the Gyamtso Nang), round the right side of which it runs and then turns south and south-west over an undulating country until Giaogong is reached. The total distance is about 16 miles, and is an easy road for ponies or laden animals. The ground is stony and bare with very little pasturage and no trees or bushes. From the top of the Sebu La all the country in the neighbourhood of Kamba Jong can be plainly seen. The Yaru Chu still runs in a large level *maidan* bounded by low bare hills to the north.

The road to Kamba Jong branches off to the north-east about a mile south of the Sebu pass, crossing a small pass in some low hills close to the road. See Route No. 29.

The following information is derived from natives :—

At Tarki Jong there are 150 soldiers and 30 or 40 other inhabitants.

Tang Lun is a large town (for this part of Tibet, consisting of 40 or 50 stone houses, and inhabited chiefly by herdsmen.

At Geru (or Giri) there is a fort with 25 Chinese soldiers.

At Kamba Jong there are 50 soldiers and 15 or 20 inhabitants besides.

Dob Ta consists of some 20 houses, and is the property of the Raja of Sikkim. It lies to the north of the Tsomo Tel Thung lake.

Route No. 31.

FROM KHAMBA JONG TO KALA TSO OR KALA.

Authority and date.—CAPTAIN O. A. G. FITZGERALD, 18th Tiwana Lancers, February 1906.

Epitome.

A good road the whole way, two passes have to be crossed, the Kung-gumbo La, 17,100 feet, and the Naptha La, 17,000 feet, but the ascent and the descent of both are very gradual and easy. The lowest point in the route is Kala Tso, 15,200 feet. Camping grounds are amply large for

ROUTE No. 31—*contd.*

any number of troops, and there is plenty of water, good grazing for transport animals, no fuel except what can be picked up in yak and kyang droppings. No supplies of any kind all along the route.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
	Khamba Jong	....	..	..	See Route No. 29, stage 1.

1	Khamba Jong	Trasang, 15,500 feet.	23	23	From Khamba Jong eastward there are two parallel ranges of hills, Kamba Jong stands at one end of them, and Trasang at the other. The shortest route between the two places is between the two ranges of hills. From Khamba Jong road leads up a narrow valley, with a steady rise the whole way. At about the 10th mile the valley opens out a little, and at the 13th mile the highest point is reached, in the Kunggumbo La. From here there is a gradual descent for 10 miles to the Ani Gompa of Trasang, which is alongside a stream and is on the western edge of a broad plain. Ample camping-ground for any number of troops, with plenty of water.
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The alternate route lies from Khamba Jong along the southern slope of the southern range of hills, the going is good, there are several small ascents and descents in the road, but nowhere does the level rise above 16,000 feet. It is some 3 or 4 miles longer than the other route.

2	Trasang	Yara Che Mogu, 16,900 feet.	10	33	The road leads across a broad plain, and then enters a wide valley leading up to the Naptha La, the camp is just short of the top of the pass, at a place where the sheep herders have a small walled enclosure which they use in summer. Camping ground for any number of troops, water from a small stream close by. Good grazing, fair amount of fuel to be obtained from yak and kyang droppings.
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3	Yara Che Mogu	Camp, 15,500 feet.	10	43	The Naptha La (17,000 feet) is crossed at once on leaving camp, and then the road leads down a winding valley, with a gradual descent the whole way. The elevation of the camp would be about 15,500 feet. Ample room for any amount of troops, water from the stream running down the valley towards the Kalatso. Good grazing, yak and kyang droppings could be collected for fuel.
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ROUTE No. 31—*concl'd.*

4	Camp	..	Kala tso or Kala, 15,200 feet.	10	53	A very gradual descent for the first 4 miles and then practically level all the way to
Kalatso. Good road the whole way. See Route No. 1, stage 15.						

Route No. 32.

FROM KHAMBA JONG TO GYANTSE.

Authority and date.—CAPTAIN H. G. HYSLOP, 2nd Argyll and Sutherland Highlanders, August 1906.

Epitome.

A fair riding track and suitable for baggage animals all through. The part down the Kong Chu valley is rough and stony. Gradients very easy all through. All the passes were easy for baggage animals in August with no snow on them. The rivers were easily fordable. Water is good and can be obtained at each stage, grazing can also be obtained. Grain can only be procured between Kabshi and Gyantse, principally barley and mustard. No wood anywhere along the track till Gyantse.

Another track meets this road at Chagsher Jong. See Route No. 33.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Khamba Jong	See Route No. 29.
1	Khamba Jong..	Lung-dong ..	7	7	Fair camping grounds for a small mixed force could be found at each stage.
2	Lung-dong ..	Chema-lung	18	25	
3	Chema-Lung ..	Phun-dok ..	15	40	
4	Phun-dok ..	Tongsher ..	15	55	
5	Tongsher ..	Dachen-dok ..	8	63	
6	Dachen-dok ..	Kabshi ..	20	83	
7	Kabshi ..	Tse-pongne ..	14	97	See Routes Nos. 1, 2, and 33.
8	Tse-pongne ..	Gyantse ..	7	104	

Route No. 33.

FROM GANGTOK TO GYANTSE *viâ* THE DONKHYA LA.*Authority and date.*—Report of the Great Trigonometrical Survey, 1883.*Epitome.*

The first nine stages of this route are in Sikkim and are reported on by Captain O'Connor in the "Routes in Sikkim."

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate	Total.	
	Gangtok ..	Donkhya La ..	76	76	9 stages, see "Routes in Sikkim."
10	Donkhya La ..	Tag-mar-khob	3	79	Steep descent from summit of Donkhya La (18,100 feet) for more than a mile to a sloping plain called Tso-jyung-thang where travellers usually rest. Tagmar-khob, 2 miles further on, is a cave. A short march would be necessary as the stage would probably be Momay Samdong on the Sikkim side, 12 miles from summit of pass. Camp near a stream which feeds the Cholamo lakes.
11	Tang-mar-Khob	Thar-Tshang ..	15	94	Road gradually improves after descent from pass, and runs over an elevated plateau to the <i>gompa</i> of Thar-Tshang. A stream which runs past a monastery close by is the head waters of the Arun river. From here to Kamba Jong is 22 miles.
12	Thar-Tshang ..	La-Ngoi (Dok)	23	117	Level road for 11 miles up the Arun, passing several <i>doks</i> or herdsmen's camps. Then ascend the La-Ngoi La (16,000 feet), a difficult pass on the north but easy on the south. Two and a half miles down the pass reach La-Ngoi Dok.
13	La-Ngoi ..	Camp ..	20	137	Three easy passes to be crossed on this march, the Lamo La, Keser La and Selung La. Between these passes are open level plains with a certain amount of marsh

ROUTE No. 33—*concl'd.*

land and many *doks* belonging to Tong-she Jong which is visible from Selung La. The day's march is continued through open gravelly plains, passing several *dks* and a few stone-built houses here and there. This route is much used by traders.

14	Camp	..	Pong-gong (Dok)	20	157	Cross the Lama La, a precipitous and rocky mountain pass, 16,800 feet. At the foot of it and the north side is the She-kar monastery. Ten miles further on there is a rocky-cut cave at Kyil Khor Ta Dab (Kingatakdup). The road goes over open gravel-covered plains with occasional fields of barley cultivation past the village of Kab-shi, near to which the head of the Chi Chu river is crossed; hence to Pong-gong Dok at the western foot of them Pong-gong La.
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15	Pong-gong	..	Gyantse	...	12	169	Cross the Pong-gong La (13,200 feet) after a steep and difficult ascent. From the summit a fine view can be had of Gyantse and neighbourhood. Descend to town of Gyantse over grass plain. To reach monastery cross the Nyang or Paina Chu by a stone bridge, and then pass through half mile of gardens. See route No. 1, stage 19.
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Route No. 34.

FROM PHARI TO GHORA LA *via* KHOMBU.

Authority and date.—SURGEON CAPTAIN A. PEARSE, A.M.S., 1896, and native information.

No. of stage.	NAMES OF STAGES.				DISTANCES.		REMARKS.
	From		To		Inter- me- diate.	Total.	
			Phari	..	..	..	See Route No. 1, stage 12.
1	Phari	..	Samchen	..	9	9	From Phari proceed south along the Chumbi road as far as Samchen, 9 miles. For this stage, <i>vide</i> Route No. 1, stage 12.

ROUTE No. 34—*concl'd.*

2	Samchen ..	Khombu ..	12	21	From Samchen turn north-east up the hill-side leaving the main road. A path leads to Khombu, distant about 12 miles.
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3	Khombu ..	Ghora La ..	9	30	From Khombu to Khombu Jong is a rise of about 1,000 feet, distance $1\frac{1}{2}$ miles.
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Khombu Jong is a large square building, partly stone, partly wood, which forms the fort or guard-house for Khombu. Hence ascend by an easy gradient for one mile to Sennacup Chu. From here path is fairly level for two miles. The road now runs along the left bank of the Khom Chu rising at an easy gradient for two miles. The ascent is now steep over rough rocky ground along the left bank of the Tzozotang Chu for two miles, whence half a mile rise very steep over glacier leads to the summit of the Ghora La, elevation 17,900 feet (?) For the descent into Sikkim, see Sikkim Route, No. 28.

The country round about Khombu is described as open and suitable for camping. The natives say that a guard is stationed at Khombu Jong when the Kazi of the district is at Khombu.

There is said to be a path leading direct to Phari from the junction of the Khombu Chu and Tzozotang Chu.

Route No. 35.

FROM CHUMBI TO LACHUNG *viâ* THANKA LA.

Authority and date—CAPTAIN F. C. COLOMB, 42nd Gurkha Rifles; from native information, 1895.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
		Chumbi ..	..	..	See Route No. 1, stage 10.
1	Chumbi ..	Thanka ..	?	?	Follow the road from Chumbi to Phari (<i>vide</i> Route No. 1) for 1 mile crossing to the right

bank of the Ammo Chu at Eusakha. A mile beyond Eusakha pass Changra, a cultivation clearing; here the Rido Chu flows into the Ammo Chu.

ROUTE No. 35—*contd.*

Path now is up the right bank of the Rido Chu through fir forest. At Kobup, a cattleshed, fir forest ceases, and the valley broadens out and is open.

Road now ascends steadily to Thank, a pasture ground below the Thanka La, where camp.

2	Thanka	..	Memphu	..	?	?	Ascend steeply to summit of the Thanka La and descend to Memphu, a camp on the Sikkim side of the frontier.
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Hence see Route 26 of Routes in Sikkim.

Route No. 36.

FROM TEESTA BRIDGE (DARJEELING) TO GYANTSE *via* GANGTOK NATHU LA, AND NELUNG LA.

Authority and date.—Mr. J. C. WHITE, August 1907, CAPTAIN W. S. BRANCKER. July, 1909.

Epitome.

This is a cart road as far as Gangtok and from there on to Chumbi was built by the Tibet Mission in 1904. If another expedition or any military force had to go into Tibet, this would be a preferable route to the Jelep La, but owing to want of repair, the Nathu La would need a lot of remaking and aligning. The road from Kangmar to Gobshi *via* Nelung La is a shorter way by 9 miles to Lhasa than the road *via* Gyantse, and is used a great deal by traders.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Intermediate.	Total.	
		Teesta Bridge	..	..	See Route No. 1, stage 3.
1	Teesta Bridge..	Rungpo ..	14	14	Cross the Teesta by the bridge described in the last stage. Follow the Kalimpong cart road

for $\frac{1}{2}$ mile, here the cart road to Gangtok branches off. This is a good 12-foot road, metalled, running practically level to Rungpo. The road runs through heavy jungle throughout along the left bank of the Teesta, some few hundred feet above the level of the stream. At 4 miles reach Mali Ghat. Here there is a small 2-roomed bungalow. The river can be crossed by a wire rope bridge to the Sikkim side (passable to baggage animals), where there is a road along the Rangit valley to Darjeeling *via* Manjitar and Badamtan. From near

ROUTE No. 36—*contd.*

Mali Ghat bungalow a path leads up the hill to Kalimpong, 4 miles distant. At 9th mile Tarkhola, another path to the right leads to Kalimpong, a distance of 8 miles. Both these paths are passable to ponies or laden animals throughout. There is a forest bungalow at Tarkhola. At 14 miles reach the bank of the Rungpo Chu, which is crossed by a suspension bridge, which is 246 feet long with a roadway 8 feet wide, capable of taking wheeled transport. The Rungpo Chu forms the boundary between the districts of Darjeeling and Sikkim. Rungpo, which is situated in Sikkim on the right bank of the Rungpo Chu at an altitude of 1,000 feet above sea level, has a small bazar, a dāk bungalow with 5 rooms, and post and telegraph offices. Rice, *bhutta* (maize), fodder, fow's, eggs, etc., can be obtained. Water good. The principal man of the place is a Nepali named Lachmi Narain Prodhan, who will make arrangements for transport, etc., if application is made beforehand to the Political Officer in Sikkim. A road branches off here and runs up the right bank of the Rungpo river for 8 miles to Rorotang, where it crosses the Rhenock, Pakyong, Gangtok road. This path is passable for laden animals throughout: but is liable to be blocked by landslips during the rains.

2	Rungpo	..	Shamdung	..	12	26	The cart road continues rising slightly and at two miles again takes the left bank of the Teesta
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until the Rongni Chu is reached, 7 miles from Rungpo. At Sanko Khola, 5 miles, there is a good 4-roomed bungalow where travellers may break journey if desired. Two miles further the Rongni Chu is crossed near its junction with the Teesta by a strong wooden bridge, on the right bank is Singtam bazar. Cart road continues to the right along the right bank of the stream. A road branches off to the left from bazar to Tokul, 2 miles higher up the Teesta, which is here crossed by a light suspension bridge; this road leads to Darjeeling *via* Namchi and Badamtan. $5\frac{1}{2}$ miles further and 12 miles from Gangtok the bungalow at Shamdung is reached immediately after crossing a small suspension bridge. The bungalow is situated on a pleasant slope, 200 feet above the road and is reached by a zig-zag path from the cart road, it is a wooden building consisting of 3 rooms and a verandah. Water good, fuel and fodder plentiful.

3	Shamdung	..	Gangtok	..	12	38	Cart road continues along right bank of stream rising steadily at easy gradient for $6\frac{1}{2}$ miles
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where it crosses the Rongni Chu by a strong wooden bridge and begins ascent to Gangtok, average gradient 1 in 15. At 6 miles from Gangtok a good bridle path is met, which cuts short distance by $2\frac{1}{2}$ miles; at 2 miles from Gangtok continue along cart road again till the capital of Sikkim is reached. The road from Teesta is well-sheltered by trees along almost its entire length and runs through cultivated fields between Rungpo and Gangtok; during the summer months it is hot and steamy, but not very unpleasant. There is fairly good fishing to be had along the banks of the Teesta and Rongni Chu rivers. Gangtok is situated on a long spur running almost due

ROUTE No. 36—*contd.*

north and south with a fine view of the snowy range and valleys below. Here are situated the Maharaja's palace, official residence of the Political Officer, barracks for troops and police, dispensary, post and telegraph offices. A good-sized bazar, containing two shops with European stores, where supplies of all kinds can be obtained on *hât* days, which are held on Sundays. There are several Marwari merchants who deal in cotton and woolen goods, hardware, etc., and buy wool, musk, yak tails, etc., brought in from the Chumbi valley *via* the Nathu La and from Khamba Jong *via* the Lachen and Lachung valleys in northern Sikkim. The *dâk* bungalow is situated on the ridge near the bazar; water-supply good and conveyed in pipes to bungalow. Fuel and fodder very plentiful. A mixed brigade could be camped at Gangtok, though owing to scarcity of level ground units would have to be scattered. The water-supply often becomes short in March; but water could be obtained along the first two miles of both the Chumbi and Pengong La roads.

4	Gangtok	..	Karponang, Pussum.	10	48	Along the east slope of the spur the cart road continues for another 5 miles beyond Gangtok,

gradient 1 in 15 and thence a bridle path 8 feet wide with same easy gradient along face of precipitous hill densely covered with bamboo, magnolia, oak, rhododendrons, crossing many small streams of good clear water; at $3\frac{1}{2}$ miles there is a clearing in the forest on easy sloping ground where tents can be pitched. One and half miles further on there are resting sheds for men and animals with good water-supply, and plenty of bomboo fodder. Karponang is situated almost at the head of the Roro Chu valley, enclosed by high hills; the rainfall here is very heavy. On a level clearing, 400 feet above the bungalow, there is plenty of space for tethering transport animals. Water-supply is plentiful and abundant.

5	Karponang	..	Changu	..	11	59	Road from Karponang continues ascending and follows around the head of the Roro Chu valley.

A 3 miles Lagyap La, 10,700 feet, is crossed and road enters the Yalu Chu valley and for two miles further is practically level. Here Ronglambi camp is reached, where shelter huts for merchandise and animals have been erected. Water obtainable from stream running through camp. About a quarter of a mile further on the road crosses the Yalu Chu proper and follows up the south-eastern branch, called the Tanye Chu, rising in zig-zags to Lake Tanye Tso, elevation 12,900 feet. This lake is about $\frac{3}{4}$ mile long and $\frac{1}{2}$ mile wide, and is frozen during October and January, when the winter snows begin to fall. At the southern end of the lake is situated the old telegraph office now empty, while the *dâk* bungalow is situated at the northern end, some 150 feet above the level of the lake. There are also two large wooden huts and several smaller ones, affording shelter for about 100 men. No fuel is obtainable on the spot and has to be cut about a mile back towards Karponang. Good grazing during summer months, but fodder must be carried up from near Karponang during the winter (January to June). Water good and plentiful. The road between Karponang and Chungu is very liable to be blocked by andships from the beginning of June to the end of the rains.

ROUTE No. 36—*contd.*

6	Changu	..	Champitang	..	12	71	A good bridle path leaves Changu above the bungalow with an average gradient of 1 in 15,
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rounds the head of the lake and crosses a spur to the south, thence winding along the southern slopes of the Sibu La range till Yeukongteng, at the foot of the Nathu La, is reached. There are a few shelter huts here especially welcome during winter, when the road lies deep in snow and slush, before commencing the rise to the Nathu La. The road continues in long zig-zags up to the pass, but there is also a shorter zig-zag which can be climbed. The Nathu La is 14,000 feet and is the boundary between Sikkim and Tibet. It is closed for a few weeks by snow during the winter for animals and laden coolies. The northern slope of the pass is descended by zig-zags with the same easy gradients for about a mile and a quarter to within 1,200 feet, below the top of the pass, and the road then continues along the left slope of the valley, in easy gradients to Champitang, where in a clearing in the pine forests is situated a comfortable 4-roomed bungalow. Water good and fuel plentiful.

7	Champitang	..	Chumbi	..	11	82	The road continues in easy gradients and a few zig-zags to Kajui monastery
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thence by zig-zags down a steep northern slope on the Kajui spur to the valley of the Ammo Chu striking the road from the Jelap La about a mile below Phema 26½ (Chema). The Ammo Chu is spanned by a good cantilever bridge 100 feet in length. Just above Phema is Pipithang, a village inhabited solely by the Chinese officials of the Chumbi valley and suites. Just beyond this Chinese village there is a British Trade Registration Office. From Phema the road follows the right bank of the river as far as Chumbi where the Raja of Sikkim's house is situated, it then crosses the river by a wooden bridge. New Chumbi is 1½ miles further on. The British Trade Agent at Yatung is stationed here. It has a post and telegraph office. The dak bungalow is situated at Yusakha village on the right bank of the Ammo Chu, which is crossed by a substantial wooden bridge. Water good and abundant. Fuel, fodder, and a few supplies are available. The road from the Nathu La onwards is not being kept up, and is generally in a bad state. The old corduroy road made during the 1904 Mission is breaking up, and the little transport that crosses the pass at the present time is taking short cuts down steep and indifferent paths. See Route No. 1, stage 10.

8	Chumbi	..	Goutsa	..	11½	93½	} See Route No. 1, stages 11 to 17.
9	Goutsa	..	Phari	..	16½	109½	
10	Phari	..	Tuna	..	21	130½	
11	Tuna	..	Dochen	..	13	143½	
12	Dochen	..	Kala	..	12	155½	
13	Kala	..	Sa-ma-da	..	14	169½	
14	Sa-ma-da	..	Kangmar	..	14	183½	

ROUTE No. 36—*contd.*

15	Kangmar	..	Ser Sho (Sair Chu).	14	197½	The track runs east from Kangmar up a cultivated valley about half a mile wide;
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it is somewhat rough and ill-defined but the gradients are very easy. At 3½ miles a big *nala* comes in from the south, and three substantial houses are passed. At 4 miles the valley narrows to from two hundred to three hundred yards and the cultivation ceases. At 5 miles the valley closes to from thirty to fifty yards, and the track passes through a narrow defile as far as 6 miles. The gradients are very easy, but the defile is difficult for the passage of transport during winter owing to an accumulation of ice, which covers the road. Up to the 6th mile the valley is bounded by steep, rugged hills rising to two and three thousand feet above the path.

At the 6th mile the character of the country entirely changes, and the steep hills give place to open rolling downs. At the 6th mile a *nala* comes in from the north, by which a short cut can be taken to Ser Sho over the hills. A 7½ miles the Nelung La is crossed; a very easy and open pass. The road now runs east straight down a wide, uncultivated and gently sloping valley, until at 11 miles it reaches Nelung village in the broad Neru valley, and joins the Phari-Lhasa road. Ser Sho now lies 3 miles to the north along a flat and easy track, which skirts the western heights of the Neru valley. Water is plentiful up to the 6th mile, and at Nelung village and Ser Sho. There is unlimited camping ground at Ser Sho, and a little yak dung and *bhoosa* can be obtained.

16	Ser Sho	..	Gosong (Trakpa)	16	213½	The track runs north from Ser Sho through a flat open valley about 4 miles wide;
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this valley is bounded on the east by a high snowy range and on the west by a range of smooth-sloped hills rising to 4,000 feet above the plain; in the centre of the valley is an unlimited supply of water in the Neru Chu. The road runs within about 2,000 yards of the western hills, and at 7 miles reaches Neru village, where there is an unlimited supply of water, and some cultivation. From Neru a track runs over the western hills to Sa-u-gong; it is reported difficult, and passable to yak transport only. From Neru the road bears somewhat to the right, and at 11 miles crosses the Neru Chu by a stone pier bridge; the stream is fordable in places, but difficult for transport. At 13 miles the valley and road bear away to the north-west; here a road to Lhasa turns off and runs up a narrow valley to the east. (This is evidently the route mentioned by Mr. White in Route No. 40.) At 16 miles, the Neru Valley narrows to about 1 mile, and the scattered village of Gosong is reached. Here there is unlimited water, and camping space. A little *bhoosa* and yak dung can be obtained.

17	Gosong	..	Gobshi	..	10	223½	The track runs almost west for 4 miles, rough but with easy gradients. The valley gradually
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narrows to about 500 yards, and is commanded throughout the first four miles by a block of hills at its western end. At the fourth mile the valley

ROUTE No. 36—*concl'd.*

turns sharp north, and up to $9\frac{1}{2}$ miles the track runs along the right bank of the stream (now called the Nyang Chu), which is unfordable. The valley is narrow and winding; its sides are in many places precipitous, and are generally inaccessible. The track is rough and stony, but the gradients are easy; at places it runs along the faces of very steep slopes and could easily be broken; at other places it is almost on a level with the stream and would be under water during floods which occur in July and August. At $9\frac{1}{2}$ miles the track joins the Gyantse-Lhasa road and crosses to left bank by a strong cantilever bridge of about 20-foot span, this bridge is commanded at about 300 yards by a partly ruined Dzong, built on an underfeature on the left bank about 200 feet above the river. The road from Gyantse to Lhasa *via* the Karo La crosses this bridge, runs down the right bank of the Nyang Chu for $\frac{1}{2}$ mile and then turns east up a narrow valley. At 10 miles the first portion of Gobshi village is reached and just north of it is unlimited camping-ground on terraced barley fields. A Chinese official resides at Gobshi. See Route No. 1, stage 21.

18	Gobshi	..	Gyantse	..	20	243 $\frac{1}{2}$	At one mile, the second portion of Gobshi is passed, and the valley turns in a westerly
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direction. At 3 miles the track crosses to the right bank of the stream by a strong cantilever bridge near the village of Gya Tra. From this on the valley runs west and opens out; and the bordering hills grow less steep and rugged. At 12 miles the substantial house of Toring is passed; water is plentiful here, and this would be a suitable locality for a camp. From 13 miles to 15 miles the road runs through a group of low isolated hills. At 15 miles the Gyantse plain is reached and the track runs direct to Gyantse by Phala leaving Chanlo on the left. See Route No. 1, stages 19 to 21.

Route No. 37.

FROM NANG-KAR-TSE JONG TO PHARI *via* ROBSANG.

Authority and date.—Trigonometrical Survey by Lama, U.G., 1883.

Epitome.

This is an alternative route from Phari to Nang-kar-tsi and crosses Mr. White's track at Tso-kong Dok (Sa-gang). See Route No. 42.

Note.—Distances are approximate only.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Nang-kar-tse ..	..	..	See Route No. 1, stage 26, and Routes Nos. 45 and 46.

ROUTE No. 37—*contd.*

1	Nangkartse ..	Samding Monastery.	6	6	} See Route No. 45, stages 1 and 2.
2	Samding ..	Taglung ..	16	22	
3	Taglung ..	Tsho-kong (Sa-gang) Dok	22	44	The route at 4 miles passes Tashi Choi with 20 houses and plentiful crops of

barley. Thence over a wild grass plain it gradually ascends by a steep and difficult route to the Dug (Tug) La, 16,900 feet, at 18 miles. The descent on the south side to the grassy plain at the western edge of the Pho-mo-chang-thang Tso is somewhat easier. This part has the reputation of being the coldest tract in this portion of Tibet. The snow lies deep for 15 or 20 days, at a time, preventing all traffic, across the plains which are about 16,400 feet above sea level. In summer and early autumn these plains are covered with short, stunted grass. See Route No. 42, stage 21.

4	Tsho-kong ..	Rob-sang ..	18	62	The route strikes west across the plain to the Labtse Kyaro La, 16,600 feet, an easy pass about half-way. Thence it follows down a valley along a stream flowing into the Nyeru Chu, itself an affluent of the Nyang Chu. Rob-sang Dok is in level green fields of grass.
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5	Rob-sang ..	De-lung Dok ..	16	78	At 10 miles a stone bridge crosses the Nyeru Chu at Nyeru-toi village in the vicinity of which are wide grassy plain with villages occasionally scattered in single huts but more frequently clustering close together.
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6	De-lung ..	Ramah ..	16	94	Cross the Rob-sang La (16,400 feet) at 4 miles, by a road difficult on the north-east but easy on the south-west, and then over level plains to Ramah at the northern foot of the Yam-tse La. During this stage the Kala-tso is visible to the west and a level road leads there direct from Ramah.
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7	Ramah ..	Bam Tso ..	12	106	Cross the Yam-tse La (16,200 feet) and then the Tumparab Chu (at 6 miles) which flows from the Tum-Tso to the north-west to the Kala-Tso, distant about 15 miles. The route then crosses another pass and descends to the head of the Bam-Tso to the deserted village of Mengang.
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8	Bam Tso ..	Shur ..	13	119	The route runs south-west over an open plain leaving the Bam-Tso to the right and passing Ramme (Hramme) at 9 miles and La-wang-po Shyag-chhen Gompa.
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ROUTE No. 37—*concl'd.*

9	Shur	..	Phari	..	21	140	From Shur village, the route, runs south-west for 13 miles joining the main Phari-Lhasa route at the foot of the Tang La. Thence onwards see Route No. 1, stages 13 and 12.
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Route No. 38.

FROM PHARI TO PARO (BHUTAN).

Authority and date.—CAPTAIN F. C. COLOMB, from native information, 1895.

Epitome.

This road is greatly used by traders between Phari and Paro. It is passable to laden mules and ponies.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.	
	From	To	Inter- me- diate.	Total.		
	Phari	..	..	..	See Route No. 1, stage 12.
1	Phari	..	Sha-na	20	20	For the first 1½ miles the road is level over open grassy country to Than bi, a

camping-ground. At 2 miles is Chumi Goidang, another camping-ground; here the ascent to the Pempa La commences; at 4½ miles a spur, called Shari Gong, is crossed where ground is available for camping, and at 4¾ miles the Pempa La is reached after an easy ascent. The whole ascent to the pass from Phari is very easy. Towards Bhutan the descent is very steep for the first 300 yards but is not so bad as to prevent mules regularly crossing the pass. At 6¼ miles, after a steady descent, reach a rest-house called Kashana, at the source of the Paro Chu; the valley here is open and grassy.

Road is now down the left bank of the Paro Chu for 1 mile to Gyensa (Ghassa) a village of three houses, of which two are occupied all the year round by herdsmen. The village is under the jurisdiction of Dukgye (Domgit) Jong. Decending continually along the bank of the stream pass Chakna Chorten, a temple, at 7½ miles, and Shingkharab, a village of

ROUTE No. 38—*contd.*

two houses permanently occupied at $9\frac{1}{2}$ miles. Road is now along a level valley to 20 miles when Sha-na (Shanana) village of six houses is reached; here a Tungpa resides who is responsible to the Bhutanese Government for the collection of rents and taxes. These dues are paid in salt which is forwarded to Paro, the amount so realised amounting to about 15 maunds per month. In the vicinity of the village wheat, potatoes and vegetables are grown.

2	Sha-na	..	Dukgye Jong ..	11	31	The road now crosses to the right bank of the Paro Chu by a wooden bridge, at either end of
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which are doors which are locked at night. On this bridge is built the residence of the Tungpa or tax-collector. The Paro Chu is only fordable during the winter months. Road again descends, still following the bank of the stream, and passes Chuyu, a village of 4 houses, inhabited by cultivators, at 2 miles, and Misi, a village of 8 houses, at 4 miles; village on either side of the stream is flattish and open. Cross the Paro Chu again $\frac{1}{4}$ mile below Misi by a wooden bridge and at $5\frac{1}{4}$ miles reach Romji, a temple and one house. At $6\frac{1}{4}$ miles pass Chunji, 9 houses, and at $7\frac{1}{4}$ miles reach Dukgye Jong (Domgit Jong).

Dukgye Jong is situated on the right bank, the village consisting of about 30 houses. The jong or fort occupies a spur, $\frac{1}{4}$ mile distant from and above the Paro Chu, and between the river and the fort, the ground is rocky and precipitous. A Jongpen has his residence in the jong. In the vicinity of the village are extensive stretches of cultivation where the troops could encamp.

Patches of pine forest occur between Sha-na and Dukgye Jong.

3	Dukgye Jong	Paro	..	5	36	Pine forest is now entered, and there is a very steep descent for $\frac{1}{4}$ mile to the foot of the spur
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on which the jong is situated. Here Sinchang, a village of 3 houses, is reached. Hence the road is level for a short distance to Gujo Lungchuk, a wooden bridge, by which the river is crossed to Nyamgyi, a village of 25 houses, in a large open valley; closely cultivated with rice and wheat. At one mile, the road still continuing level, pass Chenshi, a village of 25 wooden houses, resembling those in the Chumbi Valley, and at $1\frac{1}{2}$ miles, road as before, reach Noimoi, 15 houses; this village is the limit of the Dukgye Jong jurisdiction. Road still continuing level, pass Chendona, 10 houses, at 2 miles, and Byagathang, 40 houses, in a flat valley at $2\frac{1}{2}$ miles; here there are ponies mules and cattle in large numbers. Hence the road is over an open level valley passing Ky chu Lhakang, a temple and 8 houses, at $3\frac{1}{2}$ miles, and Nemabue, a village of 60 houses, at 4 miles. One mile beyond this, at 5 miles, is Paro, to reach which cross the Paro Chu to the left bank by a wooden bridge, the roadway of which is roofed over, while at either end are gates, tenanted by the bridge guard. On right bank of the river close to the bridge is a bazar on flat ground. To Paro Jong is a very steep ascent of $\frac{1}{4}$ mile, elevation 7,740 feet; the Jong is surrounded by stone walls, painted white with a broad red bar along the centre horizontally; collected round the jong

ROUTE No. 38—*concl'd.*

there are about 25 houses. The hillsides about Paro are thickly clothed with pine forest. See Route No. 39, stage 6.

N. B.—The jong was burnt to the ground in November 1907, but in November (1910) being rebuilt.

Route No. 39.

FROM CHUMBI TO PARO (BHUTAN).

Authority and date.—MAJOR F. RENNICK, 40th Pathans, 1905.

Epitome.

This is the southern or alternative route to Paro along to the Kyunka Chu.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Chumbi	..	..	See Route No. 1, stage 10.
1	Chumbi	Lha-ri	12	12	From Chumbi the road runs first down the right bank of the Amo Chu as far as Rinchen-

gong (see Route No. 1, stage 10).

Cross the Amo Chu by a wooden cantilever bridge of about 35 feet span. The river here narrows and passes between two large rocks which form the abutments of the bridge. The track follows the left bank; generally below the edge of the cultivation on the hillside, which ceases about 3 miles. It then passes over a spur abutting on the Amo Chu. Here it is very bad; mules and ponies have to be unloaded and the loads carried for out 300 yards. After passing over the spur the track descends to some level ground, about 600 yards across. It then ascends and crosses another spur and descends to a stream which rises in Masongchundong and joins the Amo Chu about, $\frac{1}{2}$ miles from the village of Hesam-thung. [This village is wrongly shown on the map. It is not on the river-bank, but some considerable distance up a spur on the right. This stream is really the

ROUTE No. 39—*contd.*

Longmarpo Chu. There is a rough wooden bridge across it, without railings, about 30 feet long. The stream does not show signs of being subject to heavy floods.] The track now improves somewhat. It rises steadily, and about $\frac{1}{2}$ mile further crosses a small stream called the Dolep Chu. There is no bridge; and the amount of water is quite insignificant. About a mile from the bridge over the Longmarpo Chu the track leaves the vicinity of the Amo Chu and bears off to the left over a spur. It rises constantly, and passes through forests of larch, spruce and pines. Half a mile further it becomes very steep, and is no longer possible to ride, the gradient being about 1 in 2. It then passes round a spur and slightly down hill to a small stream; then up again. Here the Kyunka Chu is seen for the first time. [This stream is wrongly named in the 1"=8 mile map, where it is called the Longmarpo Chu.] After crossing the stream there are a few zigzags and the track is rocky. From a point about 2 miles from the bridge the track passes out into the open, the forest being a short distance below. It passes along a steep slope, and $\frac{3}{4}$ mile further on begins to descend to the Lha-ri. This is a small open space with here and there level ground, suitable for camping. It would be possible to fit in a couple of companies here. The Kyunka Chu is quite close and affords plenty of water. Numbers of dead trees about, suitable for fuel. Bamboos available for fodder, $\frac{1}{2}$ mile down stream.

Mule and pony transport take about 7 hours, owing to having to be unloaded at two places: coolies about $5\frac{1}{2}$ hours.

2	Lha-ri	..	Tak-phu	..	7.5	19.5	The track after leaving Lha-ri ascends the west or right bank of the Kyunka Chu for
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about $1\frac{1}{2}$ miles, when it crosses over to the other bank. The valley of this stream is narrow. The mountain sides on the left bank are precipitous, and rise straight out of the bed of the stream. They are covered with thick pine and juniper forests, with dense undergrowth. The slopes on the other (right) bank are not nearly so steep and are more open. The stream is usually fringed with a strip of level land, about 30 to 50 yards wide, dotted with trees and scrub. The valley rises gently about 250 feet in a mile. The track is good-going, and animals have no difficulty in passing between the trees. There are numerous open, grass-covered glades, which in summer must afford excellent grazing. The track follows the left bank for about 1,000 yards, when it crosses over to the other side. The stream is bridged at both points. About $\frac{1}{2}$ mile beyond the second bridge three large caves are passed on the left; and $\frac{1}{4}$ mile further a small *nala* flows across the track from the left into the Kyunka Chu. The route now bears off slightly to the right. Three-and-a-quarter miles from Lha-ri the Kyunka Chu splits into two streams of about equal volume. The one to the left is called the Chhalu Chu, and the other (which the track follows after crossing the former by a wooden bridge) the Tak-phu Chu. There is quite an extensive plain at the junction of these two streams, which would afford good camping-ground for a whole brigade. The ground is fairly open, and there are plenty of fallen trees for fuel. The plain is surrounded by an amphitheatre of rounded rocks, about a mile or so away.

ROUTE No. 39—*contd.*

About $1\frac{1}{2}$ miles beyond the junction, the track leaves the vicinity of the Tak-phu Chu and ascends a steep spur for about $\frac{1}{2}$ mile. Here the going is difficult for loaded animals. It then runs along the side of a steep hill, above the forest, and about $5\frac{1}{2}$ miles from Lha-ri descends slightly to a *nala*, and $\frac{1}{2}$ mile further on crosses the Dong-mar Chu by a wooden bridge. It then zigzags up a spur and passing round it crosses two or three small mountain streams. Here the going is soft and boggy, and the animals are liable to sink into the mire. The track now winds round several small spurs, ascending all the time, and just beyond mile 7 crosses a stream by a bridge called Lungri Sampa. There is a steep ascent from this point to the camping-ground of Tak-phu. There is sufficient space here for about two regiments, but open and fairly level ground is available in the actual bed of the stream. Fuel is plentiful.

Mules and ponies take about 5 hours, and coolies about the same, to accomplish the journey.

8	Tak-phu	..	Dam-thong, 9,500 feet,	8.0	27.5	The track descends from the camping-ground for about $\frac{1}{4}$ mile to the bed of the Kyunka
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Chu, and then runs up it for about $1\frac{1}{2}$ miles, leaving the tree limit behind. The ascent is gradual up to this point, but becomes very steep for the next $\frac{1}{2}$ mile up to the Kyu La, 13,570 feet high. [This is the name under which this pass is known, and not Miru La.] The mountain ridge at this point makes a crescent-shaped bend to the north, about a mile across. The Kyu La may be said to form one of the extremities of the crescent. The track descends on the far side for about 570 feet, and then rises to a pass called the Ha La, 13,420 feet high. It would be possible to make a road along the ridge to avoid the dip, but the ground is extremely rocky and barren with the exception of a few stunted rhododendrons. The track descends straight on the far side of the Ha La. For about $\frac{1}{2}$ mile the slope is about 25° . The tree-line is again attained, and larch and silver fir re-appear. About $4\frac{1}{2}$ miles from the last camping-ground, the descent becomes more gradual but is still severe for loaded animals. The track passes through a forest and runs along the left bank of the Ha Chu for another mile, when it crosses to the other side by a wooden bridge. The Ha Chu is an insignificant mountain torrent at this point. For the next $\frac{3}{4}$ miles the track descends a very steep spur, and is rough going. This spur appears to divide the Ha Chu from another mountain torrent on the right, which the track crosses at a point about $6\frac{1}{2}$ miles lower down from the camp. There is no bridge. A track branches off from here to Phari. This stream joins the Ha Chu, which shortly after splits into two, forming an island. The track crosses the right branch by a wooden bridge to the island, and $\frac{1}{2}$ mile lower down passes the second or left branch, and runs along the left bank of the Ha Chu for another mile or so. The gradient is now more gradual, and the ground more open. At a point, $7\frac{1}{2}$ miles from Tak-phu, the track crosses by a wooden cantilever bridge to the right bank, and runs over fairly level country to the Dam-thong camp. Here is plenty of open and fairly level land for camping purposes. A brigade could easily be accommodated. The ground is covered with good turf. Fuel plentiful.

ROUTE No. 39—*contd.*

Transport takes about 3 hours to get from the Tak-phu camp to the top of the Kyu La : another hour to the Ha La ; and thence to Dam-thong about $3\frac{1}{2}$ hours more.

4	Dam-thong ..	Ha Jong ..	9.0	36.5	General direction of track, south-easterly. The track, which is a good one, runs mostly
<p>on the right bank of the Ha Chhu. The Ha Valley falls very gently as far as Ha Jong. Its main aspect appears to be a series of flat, grass-covered bottom-lands or plains, about 400 to 800 yards long and from 100 to 400 wide. The mountains then begin to rise gradually for about 100 to 450 yards or more; this strip is generally cultivated. The mountains then become much steeper and are forest-clad. The Ha Chu is everywhere fordable and does not appear to be subject to any great rise ; there are no signs of periodical floods. About $\frac{3}{4}$ mile from the Dam-thong camp the track crosses a small <i>nala</i>, which is bridged. The track then rises to cross a small spur on which is situated a small village of some 10 houses and a monastery, Ghechhu-ka. Below the monastery, a bridge over the Ha Chu establishes communication with the village of Samto-chelli (?). The track descends slightly to a small <i>nala</i>, then crosses the nose of another spur, on the far side of which lies the village of Chein-pa. Here an indistinct track branches off to a village called Homla, situated up one of the side valleys. At about 2 miles, Khyed-chuka village, of some 12 houses, is passed. The track now crosses a grass-covered plain, about 1 mile long and 600 yards broad at its widest. Both the track and the river run on the left side of the valley. Up the hillside to the south lies the village of Chungpa, of some 16 houses. A little further on there is a bridge over the Ha Chu, which establishes communication with the Gyam-teng Monastery, perched on a knoll on the left bank. It is in very bad repair. It is also possible to pass down the valley on this side, the two tracks coming together again about $1\frac{1}{2}$ miles down stream. At 4 miles Kyengsa is passed to the right. Opposite this point the Talung Chhu empties itself into the Ha Chu from a northerly direction. A track runs up this stream over the Suga La to Para. The large village of Yang-thang, of some 25 houses, lies on the left bank, about $\frac{1}{2}$ mile further down. There is a bridge across the Ha Chu; and it is by this that the track on the left bank rejoins the main one on the right bank. Just below Yang-thang a minor valley branches off to the right. From this point, for about a mile, the mountains close in and restrict the valley. The fall seems to be greater. Near the village of Natsa, about 5 miles, the valley opens out again into a grass-covered <i>maidan</i>, about a mile long and $\frac{1}{2}$ mile broad at its widest. The river has fallen about 1,000 feet up to this point. Up on the hillside to the right, a little beyond Natsa, is the village of Kagayma; and at the far end of the <i>maidan</i> lies Unga, one of the largest villages in the valley. Knolls on either bank close in again on the river. The aspect of the scenery changes somewhat. The geological formation of the upper part of the valley consists mostly of gneiss. This now gives way to crystalline limestone, and the lower hills are more rounded than hitherto, and appear if anything more densely covered with forests. At Unga the regular track crosses over to the left bank over a bridge, and $\frac{1}{2}$ mile further down recrosses to the right bank.</p>					

ROUTE No. 39—*contd.*

There is, however, a good track on this bank also, right up the hillside. Two villages, Gusthu and Chukyi, are passed between the two bridges. There is a small *maidan* to the left of the river. Two minor valleys, separated by a spur, give on to this plain. Up the second lies Wangtsa, a fairly large village. The hillsides again close in and the valley becomes quite narrow. At $7\frac{1}{2}$ miles it again opens out slightly. The village of Pangmyena lies up the hillside to the right. Half a mile beyond, the Ha Chu flows at the foot of a cone-shaped knoll about 500 feet high, but the valley opens out again about 1,000 yards further on. The track passes along the face of a knoll on the right, through the village of Kyipri, and then through Hathompiong, where there is a *jong*. It then crosses to the left bank by a wooden bridge, near where there is excellent camping-ground.

Transport takes about 3 hours to do this march.

5	Ha Jong	..	Chanana	..	7.2	43.7	General direction at first north-easterly and then easterly. After leaving the camp the
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track gradually ascends for about $\frac{1}{2}$ mile the side of a hill which overlooks the bridge. It then zigzags up a spur through a pine forest with thick undergrowth. The gradient is steep, but can be negotiated by laden animals without much difficulty. At about $1\frac{1}{2}$ miles the track reaches a point where the side of the spur appears less steep and the forest not so dense. It then curves round to the right and runs almost straight to the Chu La. The ascent is very gradual, and the going not too rough. Four small mountain torrents are crossed; no attempt has been made to bridge them. At about $4\frac{3}{4}$ miles the top of the pass is reached, at an elevation of 12,100 feet above sea level or 3,700 feet above the plain below. The surrounding mountains are fairly open; nevertheless there are a few silver firs nestling in amongst the rocks on the pass. The descent on the far side is very steep and difficult for laden transport. It is straight down the right or southern side of a spur that appears to have its origin just above to the left of the pass. About 600 yards or so down the hill the forest line is again reached. The descent is still steep, but about 2 miles from the pass it becomes possible to ride again. The track here passes round the nose of the spur and runs for a short distance along the other side of it; a little less than $\frac{1}{2}$ mile further on it dips down to cross a tributary of the Par Chu by a wooden bridge. The village of Chanana, consisting of some 4 or 5 houses scattered about the fields, is now reached.

The camp, which is quite a small one, sufficient probably for a company, is just above the bridge. Its site is marked by two huge pine trees, one of which is over 22 feet in girth and must attain a height of over 100 feet. There is more camping-ground available in the fields in the vicinity; it is, however, on a slope. Water excellent from the stream. Fuel abundant.

Transport takes about $4\frac{1}{2}$ to 5 hours to do the march.

6	Chanana	..	Paro	..	5.6	49.5	(N.B.—Although the entire distance from Ha to Paro is just a little over 13 miles, still it
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is not advisable to do it in one day with laden transport. Pedestrians,

ROUTE No. 39—*concl'd.*

however, have no difficulty in covering the distance in one day if the Chu La is not under deep snow.)

After leaving the Chanana camp the track crosses two small unbridged *nalas* (general direction north-east by east), and then for about $1\frac{1}{4}$ miles runs either level or ascends slightly up the side of a spur, the southern slopes of which are very steep. The ground is fairly open, and quite rideable. After having reached a knoll which the spur forms, it begins to descend rapidly and laden transport has difficulty in getting down. The nature of the soil also changes about this point. The geological formation has been mostly gneiss and the hillsides have been rocky. It now changes to sandstone with limestone superimposed at intervals. The soil consists mostly of red clay, and in heavy rain it would be a matter of difficulty to cover the remaining distance to the valley below. At about $2\frac{3}{4}$ miles the private monastery of the Shabden Rimpoche, or Dharma Raja, is passed about 300 yards away on the left. It is a fine building, round which several other houses cluster. There is a minor monastery quite close to the road. The track now zigzags down the spur for the next 2 miles. The gradient is severe. At about 4 miles, pass the village of Zacheka, of 15 houses, on the right. Six hundred yards lower down, the flat land of the Par Chu Valley is reached, height 7,150 feet. The bottom land is about $\frac{1}{2}$ mile wide and fairly flat. The Par Chu at this point has a fall of about 1 in 60, and an average depth of 2 feet. Current swift; with rapids. Rocky bottom; clear water. Near the fort the southern or right bank is protected by a bund of round boulders about 6 feet high. Camping-ground easily big enough for a brigade. The valley is highly cultivated: bottom-land mostly rice-fields, with here and there grass-covered meadows, intersected by irrigation channels. Soil sandy. Floods about 4 feet.

See Route 38, stage 3.

Route No. 40.

FROM PHARI TO RALUNG *via* RHUM.

Authority and date.—J. C. WHITE, 1906.

Epitome.

Mr. White says this route is used almost entirely by yaks and much of the through goods follow it. It seems to be the usual route followed by Tibetans when going direct to Lhasa.

For Phari see Route I, stage 12; and for Ralung, see stage 23.

(The route seems to go east of the Ramtso and west of the Eb-Tso lakes through Nelung and over the Nelung La and so on to Ralung.) See Route No. 37.

Route No. 41.

FROM BIAKA JONG (BHUTAN) TO LHA-KHANG *via* THE MONLAKA
—CHUNG LA.

Authority and date.—Report of the Trigonometrical Survey of India on the explorations made by R. N. in 1885-86.

Epitome.

This is a much used trade route.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
	Biaka Jong ..	....	..	..	See Bhutan Route Book.
1	Biaka Jong ..	Shabjithang .. (Bhutan)	10	10	
2	Shagjithang ..	Kopub (Bhutan)	14	24	
3	Kopub ..	Champa (Bhutan).	8½	32½	A village and Bhutanese guard. Height 12,550 feet.
4	Champa ..	Phukbakha (Bhutan)	10	42½	A halting place. Elevation 15,400 feet.
5	Phukbakha ..	Suphuk ..	9	51½	After a stiff ascent of 4 miles the summit of the Monlakachung La (17,500 feet) is gained.

At 1 mile the Larcho Tso, about 1 mile in circumference and the source of the Pomthang river is passed. From the summit the descent into Tillet is not nearly so steep as on the southern side. Glaciers lie on either side of the pass and 1 mile east of the Suphuk cave there is a small lake, the source of the Yura Chu.

6	Suphuk ..	Rest house ..	?	?	Follows the course of the Yura Chu to a rest-house where goods are collected prior to being conveyed over the frontier.
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7	Rest House ..	Yura jong ..	9½	?	The route follows the stream down, passing Lhag-pachhachhu (15,200 feet) at 4 miles.
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At this spot, there are about 50 hot springs to which people from all parts resort for cures ; a house has been erected in connection with the springs.

ROUTE No. 41—*concl'd.*

At 9 miles there is a "Chorten" and a "Mendong" and a little beyond the Gonsa Chu from the north-west falls into the Yaru Chu. At Yaru Chu Jong there are 20 houses, the inhabitants of which are chiefly engaged in trade.

8	Yaru Jong ..	Se Sanghar Guthok.	8	7	The route follows the left bank for 7 miles and then crosses to the right bank. This seems to be the place called Tashi-Chokar in Route 42. The route here joins in with Routes Nos. 42, 45 and 47.

9	Guthok ..	Mug ..	15	7	} See Routes Nos. 42, 45 and 47.
10	Mug ..	Lha-khong ..	13	7	

Route No. 42.

FROM DEWANGIRI (ASSAM) TO KANGMAR (DARJEELING-GYANTSE ROAD) *via* LHAKANG.

Authority and date.—J. C. WHITE, I.C.S., 1906.

Epitome.

This was the route followed by Mr. White in 1906, on his journey from Dewangiri to Gyantse. He says that with a little blasting and earthwork it could be made an excellent bridle-path. There is a short way up to Kure Chu from Lhuntsi Jong to Lhakhang, but it is very difficult as it runs in an immense gorge.

For the part Dewangiri to Tashi-gong see also Route No. 44.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Dewangiri ..	Rading ..	..	..	The present path is very badly graded and could be improved by a new alignment. See Route

No. 44, stage 1.

2	Rading ..	Chungkhar	The large monastery of Yong La is passed, as a ridge, 7,700 feet high, is crossed. This is a hard long march, but the road is quite rideable and the alignment can be adhered to except in very few places.
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Chungkhar (6,475 feet) is the residence of a Jongpon.

ROUTE No. 42—*contd.*

3	Chungkhar ..	Denchung	The path goes straight down hill to the Chalar Chu and on a few hundred yards to the Demri Chu (2,455 feet). From here the path runs up the south-east side of the hill to Sasi (4,400 feet) on the ridge. From this the path falls to the Tondong bridge (3,000 feet), then a climb up a steep rock face to Denchung (4,275 feet). Good camping-ground.
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4	Denchung ..	Tashi-gong	A very long march taking 12 hours to accomplish. The path goes over the Yonbo La (8,300 feet), then down on to some fine downs. This would make a camping-ground, if necessary. The path was very narrow, but the alignment is good. From here onwards the path leads down through oak and rhododendrum woods, passing the village of Rungthung, and Tashigong is 5 miles further on. The last part is along a bare steep hill slope. Tashigong seems to be a fairly big village and the residence of a Jongpon. See Route No. 44, stage 5.
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5	Tashi-gong ..	Serpang	There is a very steep descent of some 1,100 feet to the iron suspension bridge over the Dangma Chu. From the bridge the path went along the hillside a good way above the river till it comes to Gom Kora. A little further on the Dongma Chu is left on the right and the path crossing the Kholung Chu by a cantilever bridge goes up a very steep ridge to Serpang (6,450 feet).
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6	Serpang ..	Tashi-Yangtsi..	The road on the Tashi-Yangtsi winds round along the side of the hills through oak and rhododendrum. The march is a short one.
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Tashi-Yangtsi (5,900 feet) is situated on a sharp spur between the Kholung and the Dongdi rivers.

An easy trade route runs over the Ging La to Donkhar where it joins Route No. .

7	Tashi-Yangtsi..	Wangteng	The path goes up a side valley the whole way to Wangteng (10,080 feet).
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8	Wangteng ..	Lingji	The path goes over the Shalaptsa La (12,000 feet), and meets the head waters of the Sheru Chu. The Bozong La (12,600 feet), is crossed and then the path comes to the watershed of the Kuru Chu. The going is bad till some downs are reached; then it is fairly level through a forest to Lingji (6,225 feet).
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ROUTE No. 42—*contd.*

9	Lingji	..	Pangkha	A steep descent to the Kuru Chu (4,600 feet), then for some way along its left bank, and, owing to there being no bridge over the Khombu Chu, there is a long climb of 1,400 feet then down to other side. After passing the village of Khoma, there is an exceedingly steep ascent to the village of Pangkha.
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From the village of Nyalamdung a good view of Lhunsi Jong on the right bank of the Kuru Chu. It is on a spur between the two rivers and is a large-sized Jong.

10	Pangkha	..	Tsekhang	The path goes over the Yeb La, which is only a spur, then descends 3,000 feet to the Khoma Chu.
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11	Tsekhang	..	Tusum Mani	Up the valley of the Khoma Chu to Tusum Mani (10,900 feet).
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12	Tusum Mani	..	Narimthang	A good riding track to Singhi Jong, then on to Narimthang (13,900 feet) which is only 4 miles from the foot of the Kang La.
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13	Narimthang	..	Metsephu	Ascending past a lake to the Kang La (16,290 feet) with a stiff climb up for the last 1,500 feet and descend over a small glacier on the west side down to a stream then up and round a spur to another valley up which the road goes for some miles to Metsephu (15,300 feet).
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14	Metsephu	..	Lhakhang	Cross the Fod La (16,290 feet) which is the boundary between Bhutan and Tibet.
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On the top of the pass is a Tibetan block-house and looped-holed walls. The descent is tiresome over huge rocks down some steep slopes to Lhakhang Jong, which is an important trade centre. See Route No. 45, stage 9, and Route 41, stage 10.

15	Lhakang	..	Mug	Cross two branches of the Kuru Chu which here enters the mouth of a gorge. The road winds along the hill-side some thousand feet above the river, passing several villages <i>en route</i> , including Dur, to the village of Mug (11,650 feet). See Routes Nos. 40 and 45.
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ROUTE No. 42—*contd.*

16	Mug	..	Tashi-chukar	A very hard day's march. The road first goes down to the river, some 1,060 feet below camp, then up over a spur to Singhi Jong, a climb of 1,740 feet. Then it again goes down to a side stream and up to Nyengla (14,800 feet) and so on to a small side valley to Tashi-Chukar (14,480 feet).
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17	Tashi-Chukar..	Tuwa Jong	The road first goes straight down to the river, a descent of 2,400 feet, and then right up the other side going straight up the hill by small zigzags which are very trying. It then winds round the hillsides for some distance and again down to the stream to Tuwa Jong (13,100 feet). There is a Jong and monastery which are quite new.
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18	Tuwa Jong	..	Lhalung	At about two miles below Tuwa Jong the valley opens out; up to this it had been an absolute gorge which is impossible to go up except in the winter, when temporary bridges are made, which saves many miles in actual distance and many thousands of feet in ascent and descent. From Tuwa Jong the road runs along the bottom of the valley which is cultivated in places, but in other places is a wilderness of stone and sand. Lhalung is a fairly big village with a monastery. There is plenty of good camping-ground. See Route No. 44, stage 5.
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19	Lhalung	..	Lung	The road goes up the valley, passing the Guru Lhakhang en route.
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Lung is a very old building surrounded by ancient poplars.

20	Lung	..	Sagang	From Lung the road goes up the valley and over the Ta-la (17,900 feet) which is the watershed between India and the Pho-mo-chang-thang Lake basin and then along high rolling downs and passing three small lakes comes to the large plain at the head of the Pho-mo-chang-thang Lake. In site of the lake is the yak station of Sagang. See Route No. 37, stage 3.
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21	Sagang	..	Nelung	After climbing 600 feet the road comes to the watershed between the lake basin and the Nyeru Chu. From the ridge follow a stream down the whole way into the Nyeru Chu Valley. (This stream is not marked in Major Ryder's map.) See Route No. 36, stage 15.
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ROUTE No. 42—*concl'd.*

22	Nelung	..	Kangmar	See Route No. 1, stage 17. And Route No. 36, stage 15.
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Route No. 43.

FROM LHAKHANG JONG TO LELING JONG (BHUTAN).

Authority and date.—Trigonometrical Survey by Lama, U. G., 1883.

Epitome.

From Thingor (Route No. 45, stage 9), the route follows the course of the Lhobrak by an extremely narrow passage over rocks to the Sengeri Monastery. The next stage is Naling where there is a customs-house with a frontier outpost. Naling is a Tibetan settlement within the jurisdiction of Bhutan. The route then passes the villages of Kurti, Tincho Pet, Chakosum and others to Chatsi Petla, where it crosses the river to the right bank and then runs through Shamling, Suchung, etc., to Leling Jong. This is an important trade route.

Route No. 44.

FROM DEWANGIRI (ASSAM) TO TAWANG *viâ* TASHIGONG.

Authority and date.—Gazetteer of Tawang by LIEUTENANT J. McD. BAIRD, 1888.

Epitome.

This is practically the same route as No. 42 as far as Tashigong.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Dewangiri 2,100' ..	..	..	This is a small Bhutia village in Kamrup District. About 25 houses; water scarce,
supplies limited.					

ROUTE No. 44—*contd.*

1	Dewangiri ..	Rading ..	7½	7½	On leaving Dewangiri, the road descends for 1½ miles when it enters the bed of the Deo Chu

up which it lies for the rest of the way. Direction north, and an easy march. No village: water plentiful.

2	Rading ..	Kherigenpa ..	11½	18½	The road ascends steeply to an elevation of 7,000 feet; thence it continues along the ridge, winding round an eminence which towers above in overhanging precipices; thence to Kherigenpa village it is level. Direction north. Water scarce, from a distance.

3	Kherigenpa ..	Tsatsi ..	10	28½	The road descends gradually at first but afterwards steeply for some distance. It is then level for a while when it again descends to a small torrent, it then ascends slightly to descend to the Demri Chu, a small stream, fordable. The rest of the way the road ascends except for a slight descent at the very end. Direction north-north-east. Tsatsi is a small village. This seems to be the Sasi of Route No. 42.

4	Tsatsi ..	Balfai (Bulphae)	11½	40½	The road descends steeply and uninterruptedly to the bed of the Jiri, whence it rises 500 feet only to again descend to the bed up which it goes for a mile. Thence there is an ascent the whole way by a very narrow path, hanging over very steep precipices. Direction north-east.

Balfai is a village.

5	Balfai ..	Tashigong ..	13	53½	The road firsts ascends a ridge to the north-east of Balfai to 8,000 feet, but not to the summit; thence the road is level till there is a very steep descent to a small stream, followed by a slight ascent to Rungdung village (5,175 feet); thence the road descends gradually at first, afterwards rapidly to the Demri Nudi, which it crosses: it then runs along on the right bank of the ravine 1,000 feet above it, ascending into Benka (Tashi-gong). Direction north-east. Tashi-gong is a fort situated on a precipitous spur, 1,200 feet below which, on one side the Monas roars along, and on the other side a much smaller torrent.

There are a few poor houses.

6	Tashi-gong ..	Pangsang	The road ascends and descends, and then by a steep descent down to a big river which is bridged; laden mules traverse it. A camping place.

ROUTE No. 44—*concl'd.*

7	Pangsang	..	Mooktanka	..	..	..	An ascent, the whole way to the Onsa La which is crossed. The road is good and practicable
for mules. Mooktanka is a deserted village.							
8	Mooktanka	..	Parsoksam	..	..	..	Road fairly level; mules can travel by it. Parsoksam is a small village.
9	Parsoksam	..	Onsa La	..	..	..	The road ascends very steeply the whole way. Snows fall in this pass. No village.
10	Onsa La	..	Rolam	..	..	..	Descend the whole way. The road is good. Rolam is a deserted village.
11	Rolam	..	Yierfe	..	..	..	Road good and level passable for mules. Yierfe is a camping place.
12	Yierfe	..	Dokti	..	..	..	Road level along a ridge; practicable for mules. Dokti is a large village.
13	Dokti	..	Jagarsam	..	..	..	Road descends gradually to the Dangma Chu, a large river whose source is not
far off; road scarcely traversable for mules. Jagarsam is a camping place.							
14	Jagarsam	..	Shangya	..	..	..	Road level along the left bank of the Dangma Chu; passable for mules. No village
at Shangya.							
15	Shangya	..	Bomja	..	..	..	Road level along the left bank of the Dangma Chu; passable for mules. Bomja is a
village.							
16	Bomja	..	Tawang	..	..	..	The road ascends steeply the whole way. For Tawang see Route No. 50, stage 13.

Route No. 45.

FROM NANG-KAR-TSE JONG (DARJEELING-LHASA ROAD TO LHA-KHONG JONG.

Authority and date.—Trigonometrical Survey by Lama, U. G., in 1883.

Epitome.

Leaving the neighbourhood of the Yamdok Tso the route runs southwards over the Yeh La and Manda La past the Pho-mo-chang-thang Tso into the valley of the Lhobrak. It then runs south-east within the Lhobrak basin to Lhakhong Jong, an important place at the junction of the Lhobrak (Kuru Cau) and Tamshul rivers (See Route No. 42). The Lhobrak Valley is thickly populated and well-cultivated.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
		Nang-kar-tse ..	..	..	See Route No. 1, stage 27.
1	Nang-kar-tse ..	Samding ..	6	6	The route is eastwards over a grass-covered plain to Samding Monastery.
2	Samding ..	Taglung ..	16	22	The route is southwards past the Dumo Tso and over the precipitous ridge of the Tag La;
then along the shore of the Yamdok Tso.					
3	Taglung ..	Thiu Gampa ..	18	40	Cross the Yeh La and descend to the north-east corner of Lake Pho-mo-chang-thang (16,500 feet). Round the lake there is a belt of gentle slope dotted over with Dokpa tents. A spacious plateau extends to the north-east of it along which the passage to the Manda La lies."
4	Thiu ..	Manda ..	16	56	Cross the Manda La, a very steep pass, and descend to the village of Manda La in the Lhobrak Valley. The Upper Lhobrak is well-cultivated. Manda is west of the village of Guru Lhakang. See Route No. 42, stage 20.

The Manda La is the boundary between U and Lhobrak.

ROUTE No. 45—*contd.*

5	Manda	..	Lhalung	:	8	64	The route follows the course of the Lhobrak through a valley filled with villages and cultivation. Lhalung is surrounded by crops of barley, peas, mustard, wheat and rape. See Route No. 42, stage 14.

6	Lhalung	..	Tong Tso Pama-ling.		17	81	The route follows the Lhobrak Valley for 3 miles and then turns southwards along the Tum La Pass road to Bhutan. The road ascends the Tum La (16,850 feet) to a grassy plateau in which lies the sacred lake of Tong Tso Pama-ling. The pass is difficult and the ascent rough and trying along snow covered slopes flanked by deep gorges. After a descent of 2,000 feet on the south side there is "a beautiful flat country which gently slopes up to the foot of the mountains carpeted with exquisite verdure and lovely flowers and bushes of different shrub." The monastery of Tong Tso Pama-ling is at the head of the lake.

7	Tong-Tso Pama-ling		Seh-sang kar-guthog.		11	82	Leaving the lake to the west, the road runs along to the south-east along the river which drains from the lake into the Seh Chu, a tributary of the Lhobrak; it lies over plains covered with a prickly shrub bearing red berries and passes several villages on the banks of the stream. Stone bridges are frequent and one crosses the Seh Chu to the monastery. The explorer R. N. states that Seh (13,900 feet) is a village of 80 houses containing 300 people and that Sangar Guthok Monastery overlooks it. The Yura (Seh) Chu here flows through a fine grassy valley, rich in pasture. Large herds of cattle, yaks, mules and asses exist. Cultivation is fairly extensive and trade brisk. From here a route runs into Bhutan (see Route No. 40).

8	Seh-Sangar-Guthog.		Mug	..	15	97	The route is eastwards approximately parallel to the Lhobrak and crosses the high passes which surmount the long spurs of the southern watershed which forms the boundary between Tibet and Bhutan. This is apparently the main route southwards, the actual valley of the Lhobrak being presumably impassable. The road crosses the Roipa La (15,800 feet), which is steep on the north but fairly easy on the south side, and the Kha-na La into the lateral valley of the Mug which is well-populated and highly cultivated. The country possesses much the aspect of Sikkim. Barley and peas are chiefly grown. Monasteries are frequent. See Route No. 42, stage 15.

9	Mug	..	Lhakhang	..	13	110	Crossing south out of the valley over an easy pass, the road reaches Lung-hab at 7 miles where mountain slopes are covered with pines. About 4 miles further on is Thingor, a little north of the junction of the Lhobrak and the Tam-shul, a large affluent

ROUTE No. 45—*concl'd.*

from the north-east. Lhobrak is crossed by a great stone bridge about one mile above its junction with the Tam-shul. The bridge is 40 feet high, 100 feet long and strong and substantial. The road passes over an intervening spur to the Tam-shul which is crossed by another stone bridge with a guard-house at the eastern end; it then ascends a steep incline on the left bank to Lhakhang Jong. See Route No. 41, stage 14, and Routes Nos. 40, 47 and 48.

From here an important trade route runs southwards to Bhutan (see Route No. 43).

Route No. 46.

ROUND THE YAMDROK TSO.

Authority and date.—Trigonometrical Survey by Lama, U. G., 1883.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Nang-kar-tse ..	Yasi ..	11	11	} See Route No. 1, stages 27, 28 and 29.
2	Yasi ..	Pede Jong ..	4	15	
3	Pede Jong ..	Demalung ..	11	26	
4	Demalung ..	Shu-jung ..	12	38	Following the eastern margin of the lake, the route passes several villages. The road
round the eastern edge is by no means level or easy. It constantly crosses small but rough spurs running down from the hills on the north-east, occasion- ally leaving the lake and again approaching its shores. Each stream, that is crossed draining into the lake, affords some sort of a track or pass across the intervening mountains into the head of the Thib Valley leading mostly to Tom Nomgyalling Jong and thence to Kedeshe Jong.					
5	Shu-jung ..	Tongra Jong ..	13	51	As before but the route passes fewer villages and crosses the Phu Chu La (15,500) at 7
miles.					
6	Tangra ..	Tangda ..	15	66	As before.

ROUTE No. 46—*concl'd.*

7	Tangda	..	Loh-bu Jong	..	9	75	As before except that the tracks up the stream lead into the Yamdrok-Kamoling plain. See
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Route No. 48). At 3 miles the route passes Shabshi and at 6 miles the stream draining from the Yamdrok-Kamoling into the lake is crossed with difficulty. The route then turns west along the southern edge of the lake.

8	Loh-bu	..	Sha-ri	..	24	99	Still following the southern edge of the lake the route passes through Ka-mi-do over the
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Gyan-ju La (7 miles) to a plain called the Nyema Lung; thence over another pass between the Yamdrok Tso and a small lake, the Rombudsa Tso and across a deserted plain to the Kabu La, a pass over a spur descending from the southern watershed. From the Kabu La (16 miles) the route descends again into another dreary deserted expanse of plain covered with coarse stiff grass. From here an alternative tracks run south-west over the Sera L. Turning north-west, the route leads to Sha-ri village across another small lake, which is apparently fordable, close to the Yamdok Tso.

9	Sha-ri	[..	Taglung	..	19	118	The route hugs the southern edge of the lake passing through somewhat more cultivated
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country with villages at intervals.

10	Taglung	..	Samding	..	16	134	See Route No. 45, stage 2.
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11	Samding	..	Nang-Kar-tse	..	6	140	See Route No. 45, stage 1.
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Route No. 47.

FROM LHA-KHANG JONG TO CHETANG *viâ* TUM-SHUL.*Authority and date.*—Trigonometrical Survey by Lama, U.G., 1883.*Epitome.*

General direction north-east. The route follows up the Tam-shul Tsangpo crossing a succession of spurs, trending down from the mountains on the south-east, the passes over which though sometimes difficult are invariably practicable for laden ponies, yaks, etc. Between these spurs are narrow and for the most part uncultivated valleys some of which like that of the (Penpa Chu) afford means of access to the crest of the mountains and lead to passes over

ROUTE No. 47—*contd.*

them. Villages are fairly frequent on the river banks where the side water-courses debouche into the main valley; and as the valley opens out towards the upper reaches, there is a good deal of cultivation on both banks of the river. The Tam-shul river appears to be bridged at frequent intervals; U. G. mentions frequent crossings of the stream and invariably speaks of the bridges as being stone built, solid constructions.

From Tam-shul village the road crosses out of the valley over the Shar-khaleb La and a bare stony plain to the Tigu Tso whence it crosses the Che-la into the Yalung Valley.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.	
	From	To	Inter- me- diate.	Total.		
		Lha-khang ..	..	..	See Routes Nos. 42 and 45.	
1	Lha-khang ..	Lu ..	..	21	21	The route crosses the Lang La over a comparatively low watershed, to the Penpa Chu
whence a road leads up the valley to the mountains on the south-east and Panpachhakdor gumpa. The road then crosses the Dsa-kar La (14,500 feet) over another spur abutting on the Tam-shul Tsangpo. This pass is the boundary between the Lha-khang and Dama Jong districts. There is a customs house at Dama Jong near the northern foot of the pass. The road crosses to the right bank of the Tam-shul at Lu village. The valley is very rich in cultivation.						
2	Lu ..	Nashi Gumpa ..	..	16	37	The road follows up the right bank to Nashi Gumpa, a branch of the great Mindol-ling
Monastery, and surrounded with trees, gardens and cultivation.						
3	Nashi ..	Tam-shul ..	..	8	45	The route continues up the river to Tam-shul, the chief village of the Dama district.

The upper valley is well-cultivated with many villages and wide grassy plains on both banks. Tracks branch off south-east over the mountains into the Shardongkar Valley leading to Men Chhuna (Chona Jong), the principal of which follows a lateral valley from near Poido (5 miles) straight to Shardongkar. A broad grass plain about 10 miles in length by 6 or 7 in width extends from the foot of the mountains which lie to the south-east, and at its edge, closely bordering the stream, is Tam-shul. Houses are scattered over the plain through which another road runs eastwards to Men Chhuna.

ROUTE No. 47—*concl'd.*

4	Tam-shul ..	"Jikkyop" ..	16	61	From Tam-shul, the road runs north, ascending gradually over a plain, past the
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monasteries of Rimon, Tashe Choilan Choilang, and Nao Chok, to Hai-de village (4 miles). Cultivation now grows scanty and the ascent to the Shar-kha leb La (16,800 feet) at 10 miles is difficult and tedious. The descent to the north is comparatively easy and at the foot there is a wide flat stony plain. The only halting place in this plain between the pass and the Tigu Tso is a forlorn "Jikkyop" standing alone in the open stone-covered expanse. A Jikkyop is a travellers' shelter erected by the Tibetan Government.

5	"Jikkyop" ..	Tigu Jong ..	12	73	The route continues across the stony plain to the grassy border of the Tigu Tso on the
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western shore of which is Tigu Jong.

4	Tigu Jong ..	Head of the Yarlung River.	16	89	The road follows along the western and northern shores of the Tigu Tso for 10 miles
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and then crosses the Che La (17,000 feet), which is easy on the southern but difficult on the northern side, to the head of the Yarlung river when a cultivated and inhabited district is reached.

7	Head of the Yarlung River	Choidi Jong ..	15	104	The route follows the main stream northwards through a valley which increases in
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fertility and richness at every step and joins Route No. 50 at stage 27.

8	Choidi Jong ..	Pisa Dokpo ..	6	110	} See Route No. 50 stages 27 to 30.
9	Pisa Dokpo ..	Chukya Phutang	9	119	
10	Chukya Phutang	Womba ..	3½	122½	
11	Womba ..	Chetang ..	7½	129½	

Route No. 48.

FROM TAM-SHUL TO YAMDROK KAMOLING.

Authority and date.—Trigonometrical Survey by Lama, U.G., 1883.*Epitome.*

There are said to be three routes, which follow the branches of the Tam-shul Tsangpo to their sources and then cross over the intervening watershed into the Yamdok-Kamoling, the grassy plain to the east of the Yamdok Tso. See Route No. 46. The main route is said to be by the principal source of the Tam-shul Tsangpo and the Chunak La. Of the other routes, one runs over the Dzaring La *via* the villages of Kalung Tuktsa

ROUTE No. 48—*concl'd.*

Dzaring La and Sogay to Yamdrok-Kamoling, which according to Lama U. G., is about 12 miles from west to east and 7 or 8 broad ; herds of ponies which live in a semi-wild state are pastured here.

Route No. 49.

FROM LHA-KHANG JONG TO CHONA JONG.

Authority and date.—Trigonometrical Survey by R. N. in 1885.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Lha-khang ..	..	..	See Route No. 42, stage 14, and Route Nos. 41, 43 and 45.
1	Lha khang ..	Lhobrak Khar- chu.	20	20	Leaving Lha-khang by the Chetang road, the route soon strikes off in an easterly direction to Lhobrak Kharchu a place held in great veneration by all Tibetans and Bhutanese.
2	Lhobrak Khar- chu.	Camp ..	12	32	Ascend to a pass (16,500 feet) at 5 miles, the watershed between the Kuru and Dangma rivers. Then descend to the banks of a small stream.
3	Camp ..	Camp 2. ..	18	50	Descend 3 miles to the Tashi-gang Chu which is crossed by a bridge. Follow the stream down for 1 mile and then ascend for 10 miles to the Dozam La, whence the route descends for 4 miles to a grassy flat.
4	Camp ..	Dozam Chu ..	9	59	The route is over ascents and descents, the whole way.

ROUTE No. 49—*concl'd.*

5	Dozam Chu ..	Camp 3 ..	8	67	After following the Dozam Chu for 6 miles, the route turns eastwards.
6	Camp 3 ..	Chona Jong ..	12	79	Over ascents and descents to Chona Jong. See Route No. 50, stage 18.

Route No. 50.

FROM ODALGURI (ASSAM) TO LHASA.

Authority and date.—Trigonometrical Survey by Pundit Nain Singh, 1873—75.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate-	Total.	
		Odalguri, 450'.	..	..	Is in the Darrang District of Assam and is about 26 miles from Mangaldi from whence Gauhati can be reached by boat in 1½ days—by commercial steam r and mail boats in a few hours.
1	Odalguri ..	Amra Tala, .. 630'.	15	15	The road follows the Dhansiri river to its junction with the Sangti river. The Sangti river is crossed by a wooden bridge near which is the frontier between British and Tibetan territory.

Amra Tala is situated about 4 miles north of the junction of the Sangti and Dhansiri rivers. In the cold weather it is a great rendez vous for merchants from Tawang and Assam, when there are about 2000 temporary huts, built of grass and bamboo matting. In the rainy season, the roads become impassable, and the inhabitants retire to their villages.

2	Amra Tala ..	Khalak Tang, 3,000'.	14	29	The road is up stream and through jungle the whole way. To the west of the road is the village of Chingmi. The river is crossed 55 times on the march by temporary bridges which are always carried away in the rains and replaced in the cold weather. The village of Khalak Tang contains about 30 houses.
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ROUTE No. 50—*contd.*

3	Khalak Tang ..	Taklung Jong 6,940'.	9	38	The road ascends to the Chimo La (8,170 feet) from which is a commanding view of the Assam plains to the south. The Brahmaputra (Tsangpo) river is said to be visible in clear weather. The road after ascending to the Chimo La, descends for 2 miles to Taklung Jong; which is the summer residence of two Jongpons who spend the winter months at Khalak Tang and Amra Tala near the British frontier.
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4	Taklung ..	Phutung Samba 6,270'.	9	47	The road descends to a small stream and from there ascends to the Phutung La (7,040 feet) which it crosses and descends for 2½ miles to the Phutung Chu which is crossed by an excellent bridge.
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5	Phutung Samba	Camp north of Menda La.	8	55	Ascent from Phutung river very steep, especially the lower portion near the river; road good. Pass the village of Phutung on the west of the road, which contains about 150 houses. The road then crosses the Menda La (9,290 feet) and then 4 miles of steep descent through a deodar forest. One foot of snow was lying at the top in December.
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6	Camp north of Menda La.	Jyapshang, 3,930'.	5	60	Very steep descent down the range separating Phutung and Dhirang rivers. The northern slopes of this range are covered with enormous deodar trees. Pass <i>en route</i> the village of Dhirang (where the Tawang Lamas keep up a regular armed force of Lamas to enable them to cope with the independent Duffla or Lhoba tribes and raiders from Bhutan), containing about 250 houses and a fort, several stories high which acts as a barrack; the residence of two Jongpons about 25 miles down the river from Dhirang is the boundary of the independent Lhoba or Daphla country.
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7	Jyapshang ..	Pang Kang Nyungma Dong.	11	71	The road passes up the Dhirang Valley near the stream of the same name, which takes its rise in the Sai hills on the north; several large villages are passed <i>en route</i> , Dhepjang (100 houses), Lih (100 houses), and Nyongma (60 houses). Pang Kang Nyungma Dong is a wooden rest-house near the village and fort of the same name.
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8	Pang Kang Nyungma Dong.	Pang Kang Lharcha, 12,830'.	8	79	The road passes the village of Singi Jong belonging to the Chona (or Tawang) Jongpons. Four miles further on is Sai La Pass, 14,260 feet. From the pass two miles of descent follows through heavy snow; the snow extends 1½ miles south of the
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ROUTE No. 50—*contd.*

pass, and its depth is very much less than on the north (in the month of February). Pang Kang Lharcha is a wooden rest-house.

9	Pang Kang Lharcha.	Pang kang Yakma.	5	84	Road down slight descent along a path that has been beaten down through very heavy snow (February). Thick jungle on both sides of the road. Pang Kang Yakma is a wooden rest-house.
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10	Pang kang Yakma.	Jang-huil Samba, 6,690'	4	88	A steep descent through heavy snow the whole way (February). Pass the village of Jang-huil (300 houses) near the river on the east of the road.
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11	Jong-huil Somba.	Pekhan, 8,010'	3	90	Cross by a timber bridge over the Tawang river, which is a rapid stream about 40 paces in width and 5 feet in depth. Pekhan village has a large monastery and about 40 houses.
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12	Pekhan	..	Okar	..	2	93	Road up a slight ascent. Okar is a village.
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13	Okar	..	Tawang. 10,280	..	4	97	Tawang is a dependence of Lhasa and is governed by a Jongpon. It contains a large monastery,
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which is entirely independent of the Lhasa Government, and is surrounded by a fortified wall, the monastery contains 600 Lamas who are the chief officials in the Kato or Parliament by which the affairs of the Tawang District are managed. The Tawang Valley contains numerous villages. See Route No. 44.

14	Tawang	..	Pangkang	..	23	111	The road ascends from the Tawang river. The road from Tawang-Chukkang to Chona
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Jong is closed by snow from January to May or June; an alternative road lies down the Tawang river and up the Lhobra river. The Chukhang separates the Bodhpa country on the north from the Mon-huil on the south.

Pang Kang is a camping-ground in a forest.

15	Pang Kang	..	Chukhang	..	10½	110½	Cross the Mila Khatong Pass (14,210 feet) after which cross two spurs. The whole of the country
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south of the Mila Khatong Pass is designated Mon-huil, and its inhabitants are a race of people whose language differs considerably from that of Lhasa. At Chukhang there is a toll-house where taxes are levied by the Lhasa authorities, 1 in 10 on all exports.

ROUTE No. 50—*contd.*

16	Chukhang	..	Chyama Karma	5½	116½	The road crosses the Kya Kya La, from this pass to the Karkang pass about 70 miles
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north, the road traverses a high undulating plain, bounded on the north by a well marked snowy ridge running due north and south, and containing many glaciers. Road good.

17	Chyama Karma	Mondo	..	9	125½	Pass a small lake, from which a river flows in a south-westerly direction towards Bhutan.
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Mondo is a small village.

18	Mondo	..	Chona Jong	3½	129½	Road down a slight descent. Chona Jong is a town of considerable importance and contains about 300 houses with a stone fort. The town is the residence of two Jongpons from Lhasa, and is the great exchange mart, where salt, wool, borax, from the Hor country and tea, silks, woollen goods and ponies from Lhasa are exchanged for rice, spices, dyes, fruits and coarse cloths. There are large store-houses filled with rice, which is a monopoly of the Lhasa Government. There are also numerous hot springs here. See Route No 49.
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19	Chona Jong	..	Gaiba, 13,250'	3½	133	Road down a slight descent. Gaiba is a village.
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20	Gaiba	..	Tang-shu	15	148	Road passes over very elevated but tolerably level plain. Tangshu, a large Chukhang (Government bungalow) in charge of a watchmen from Lhasa. At this camp the alternative road from Womba is much used by traders from the Hor country and Shigatse. See Route No. 51.
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21	Tang-shu	..	Serasa 14,220'	17	165	Ascend the frozen Nara Yum Cho (lake) which is six miles in length and four miles in width, situated near the Serasa Pass. The road traverses, for three miles, an elevated grassy plain, then 5 miles descent by a good road. To the west and south-west many snowy peaks are visible. Serasa is a village with several hot springs.
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22	Serasa	..	Yubi, 13,120'	11½	176½	The road is good and lies down the Yumbai branch of the Sikung river, and through scattered villages. Yubi is a village.
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ROUTE No. 50—*contd.*

23	Yubi	..	Lhakchang	..	11½	188½	Ascend the stream from the pass and on the east is the camp on the right bank of the
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Sikung river, which flows through a highly elevated but thickly inhabited and well-cultivated plain (the Cha-hiul country) and ultimately finds its way to the Duffla or Daphla country. About 45 miles east of the camp, several conspicuous snowy peaks are visible over the Cha-hiul plain. Lhakchang is a village.

24	Lhakchang	..	Karkang, 15,200'	13½	202	The road crosses the main watershed by a high but easy pass (Karkang, 16,210 feet)
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from which a very commanding view was obtained in a north-easterly direction. From the Karkang La to the Dalatang La the road traverses for 15 miles a grassy plateau between 15,000 and 16,000 feet in height, through which flows a stream which takes its rise in springs and joins the Brahmaputra (Tsangpo) river below Chetang. Karkang is a small village on a highly elevated plain, which is said to be covered with snow after January. It is bitterly cold in December, although no snow lies in that month.

25	Karkang	..	Dalathang	..	9½	211½	Road down a slight descent. Dalathang has a large rest-house with good accommodation
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for travellers. It lies on the plain which forms the watershed between the Yalung and a more eastern tributary of the Brahmaputra. High snow peaks are seen to the north and south-west of the camp.

26	Dalathang	..	Karma Lhokhang 3,190'	0	271½	Road down descent. The Dalathang plain is covered with cattle as late as December,
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although the cold is very severe.

27	Karma Lhahang.	Pisa Dokpo, 11,890'	10½	228	Road down the Yalung Valley, several villages passed <i>en route</i> .
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28	Pisa Dokpa	..	Chukya Phutang.	9	237	Road still down the Yalung Valley, numerous Villages and monasteries are passed <i>en route</i> . Chukya Phutang is a large town of 400 houses, with a fort and a large monastery.
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29	Chukyo Phutang.	Womba [11,620'	39	240½	From this place the road to Lhasa is first rate and in good condition, Womba is a village.
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ROUTE No. 50—*contd.*

30	Womba	..	Chetang, 11,480 feet.	7½	247½	Several monasteries are passed <i>en route</i> the Naitong and Tamtuk Gonba, from whence a
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road passes up stream and meets this road at Tang-shu (see route No. 51). This alternative road passes through an inhabited but pastoral country which contains numerous fruit trees, wheat, barley, and pease; vegetables are abundant and there is good grazing.

Road down the Yalung valley with villages and mountains on both sides of the stream. Chetang contains about 500 houses and two very large monasteries which give shelter to 700 lamas; it is situated on the right bank of the Yalung.

31	Chetang	..	Dhomda, 11,350 feet.	6½	254½	At Garpa Duga there is a ferry over the Tsangpo where the river is 350 yards wide, 20 feet
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deep, and has a very sluggish current. This part of the Brahmaputra is known as either Tsangpo (the river) or by the name of Tamjunkha. The valley through which the river flows is here several miles across; on the left bank is a stretch of sand 1½ miles in breadth; the whole of which is said to be under water in May, June and July. The village of Dhomda is reached 2 miles further on. The road goes north-west to the village of Dhomda.

32	Dhomda	..	Samaye Gompa, 11,430 feet	12½	266½	Road passes over a sandy plain along the north bank of the Tsangpo. Samaye Gompa is a
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large and ancient monastery, situated about 3 miles to the north of the Tsangpo. It is surrounded by a very high circular wall, 1½ miles in circumference, with gates facing north, south, east and west. The centre of the enclosed space is occupied by a very large temple, and is surrounded by four smaller ones, placed half-way between each pair of doorways.

33	Samaye	..	Camp south of Gokhar La.	10½	277	The road is good but deep in sand, which covers the whole of the surrounding country.
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34	Gokhar La	..	Chang-ju, 13,650 ft.	10½	287½	From the Gokhar La, which is on the watershed between the rivers Kyichu and Tsangpo, there is a very extensive view, embracing the Nijen Thangla peaks (south of Namcho lake) and a very conspicuous peak nearly due north about the same distance off and the same height as the Nijen Thangla (about 24,000 feet). Road good; ascent to Gokhar pass (16,620 feet) easy; but descent from the pass, about 5 miles, very steep. Changju is a village.
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ROUTE No. 50—*concl'd.*

35	Changju	..	Dhenjen Jong..	8	295½	The first part of the road passes through thick jungle and is occupied by the Dogpas ; it then descends an affluent of the Kyichu river. Dhenjen Jong (see Route No. 2, stage 67) is the first halting-place on the high road to China ; it contains about 500 houses and a large monastery, situated on the left bank of the Kyichu with 300 lamas. There is a large fort here on high ground outside the town.

36	Dhenjen	..	Lhasa	..	14	309½	The road lies down the Kyi-hu passing <i>en route</i> several villages and Kombo Thang, 2 miles from Lhasa. Lhasa is not a large town, its circuit being at the utmost 2 leagues ; it is not surrounded like the Chinese towns with ramparts. The principal streets are broad, well laid out and tolerably clean but the suburbs are very filthy. The houses are lofty and handsome, being built of stone, brick and mud and are all covered by lime wash.

See route No. 1, stage 36. This route is 65 miles shorter than the *Siliguri* road.

Route No. 51.

FROM CHETANG TO TANGSHU.

Authority and date.—Trigonometrical Survey by L. in 1875-76.

Epitome.

The road passes through an uninhabited pastoral country ; it is much used by traders from the Hor country.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
		Chetang ..			See route No. 50, stage 30.
1	Chetang ..	..	13	13	The route follows the main Chetang-Tawang road for 4 miles to Tam-tuk Gompa. The first stage is within the Yalung valley ; the country is fertile and there are many villages along the route.

ROUTE No. 51—*concl'd.*

2	..	Dhakyaling ..	14	27	The country becomes bleak and barren. At Dhakyaling are two monasteries and a village.
3	Dhakyaling ..	Karkang ..	10	37	Snow-capped mountains close in on the road which ascends for 3 miles to the Yanto La (16,800 feet) on which is a frozen lake 300 paces in circumference. After an easy descent of 3 miles, the road enters upon great, bleak, barren, stony plains. There is a small gampa (6 lamas) and a travellers' rest-house at Karkang.
4	Karkang ..	Giarokh ..	13	50	The country is very bleak and desolate; the plain, through which the road passes varies in width from 1 to 10 miles, and is bordered by low, undulating hills. There are a few houses and some fields at Giarokh.
5	Giarokh ..	Sumna ..	21	71	At 3 miles a road branches south-west to Nia, distant 8 miles, where there is a fort with many villages scattered about on the surrounding plain.
6	Sumna ..	Tangshu ..	11	82	At 4½ miles the road crosses a stream draining to the south, and then ascends for 1 mile to the Nara Yum-tso, on the west of the route. 3 miles further Tang-shu is reached. See route No. 50, stage 20.

Route No. 52.

FROM CHETANG TO MIRI PADAM (NEAR ASSAM BORDER) *viâ* BRAHMAPUTRA RIVER.

Authority and date.—Trigonometrical Survey by K.P. from 1880 to 1884.

Epitome.

The route follows the right bank of the Tsangpo as far as Chamnak, when it crosses over to the left bank. Then leaving the Tsangpo at Demu Jong makes a detour to the eastwards and regains the river at Dorjiyu Jong below the falls at Gyala Sindong. It crosses and re-crosses the river several times between Dorjiyu Jong and Korba; but from that point onward follows the left bank. The lower Tsangpo passes through a well

ROUTE No. 52—*contd.*

populated and cultivated district, but the roads are very bad. This route from Demu Jong is impracticable for animals.

Note.—This is not based on a route survey and can only be regarded as the story of K. P.'s travels, related from recollection, two years after the explorer's return.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
	..	Chetang ..	..	..	See route No. 50, stage 30.
1	Chetang ..	Mamol ..	9	9	The route follows the right bank of the Tsangpo.
2	Mamol ..	Rongchhaka	6	15	Road as above. Rongchhaka is a jong with 50 houses.
3	Rong-chhaka	Lhagyari Jong.	12	27	Road as above. There are two gold mines at the back of Lhagyari Jong, whence a stream
issues to join the Pathang La drainage; this stream is crossed several times. There are 500 houses under a Jongpon whose district extends from the Pathang La to Dakpu (Thakpo Nong Jong?).					
4	Lhagyari ..	Jikkyopel ..	6	33	Road as above. (A "jikkyop" is a house erected by the Tibetan Government for pilgrims and travellers as a shelter from storms and wild animals. Jikkyop means "to protect from fears.")
5	Jikkyop 1 ..	Jikkyop 2 ..	7	40	Road as above, and cross the Pathang La.
6	Jikkyop 2 ..	Rizur ..	8	48	Road as above.
7	Rizur ..	Lamda ..	10	58	The route follows a stream rising from the Pathang La and passes the remains of 2 or 3

ROUTE No. 52—*contd.*

ruined villages. There are about 40 houses at Lamda and the soil yields good crops of wheat and barley.

8	Lamda	..	Dakpu Gomba (Thakpo Gom- pa).	12	70	Road along the river. The village consists of 160 houses under a Lhasa nobleman, whose title is Dungkhor. The village is $\frac{1}{2}$ mile south of the Tsangpo into which the stream from Pathang La flows 1 mile to the west. Gyasa Jong is north of Dakpu.
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9	Dakpu	..	Ani Gomba ..	12	82	Road along the river. Ani Gomba is a nunnery of 50 nuns. Two miles off is Dakpu Dala Kamba Gomba (300 lamas).
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10	Ani Gomba	..	Nam Jong (Thakpo Non] Jong.)	19	101	Road along the river. Nam Jong is a build- ing with fortified walls, whence all the roads to Kangbu branch off. There are a <i>jong</i> and a <i>gompa</i> .
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11	Nam Jong	..	Dong Kargon (Kongkar Jong.)	17	118	Cross the Kongbu Ngo La; there is a "jik- kyop" half-way and another one half-way down. The pass is difficult to cross in stormy weather.
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The *jong* and *gompa* (500 lamas) are on a huge rock with a village on flat ground below. The Tsangpo turns north here.

12	Dong Kargon	..	Kindung (Kim- dong).	10	128	Pass Tsung Shod (10 houses) at 7 miles, whence a road bran- ches off over the Bibim La to Tsari. Kindung is a village of 10 houses and some lead mines.
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13	Kindung	..	Thun Tsung ..	15	143	Road along the river. Thun Tsung is a large temple and mon- astery containing both priests and nuns; many houses and good cultivation.
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14	Thun Tsung	..	Jaket ..	18	161	Road along the river. Jaket contains 3 or 4 houses; on the op- posite bank there are 60 houses and a gompa.
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15	Jaket	..	Orangkaja Jong. (Crong Jong and Kacha Jong).	15	176	Road along river.
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ROUTE No. 52—*contd.*

16	Orongkaja ..	Pithang ..	9	185	Cross a stream at 5 miles.
17	Pithang ..	Lamdor ..	8	193	20 houses and a big stream.
18	Lamdor ..	Chamnak	10	203	Pass Dungdor at 4 miles. From here a route runs south-east to Yardong. See Route No. 53.
19	Chamnak ..	Gonsa ..	3	206	Cross the Tsangpo by boat at 2 miles. There is a temple and gumpa here.
20	Gonsa ..	Demu Jong ..	2	208	100 houses and a gumpa.

Demu Jong to Chho Chokhang—10 miles.

Chho Lhagang to Guru Chokhang—6 miles.

Guru Chokhang. to Sindong—Three old monasteries and a waterfall which drops from a height of 100 feet. Bad paths run to Goitshang Duphuk, 5 miles, on the left bank, but no further.

Gyala Jong—5 houses. From here there is a short cut over the Gya La to Kongbu Lunaug (see Route No. 53) open in summer. The Tsangpo separates the gumpa on the left bank from the jong on the right bank. The Tsangpo is crossed by wood and leather boats in winter, but in summer the boats cannot be used. Travellers have to swing by a rope stretched across. The passengers are tied to the rope and pulled over by a second rope from the other side. To Pema Kaichung, 10 miles, on the right bank, there is a bad path, but no further.

21	Demu Jong ..	Demu La ..	20	223	Camp at the foot of the Demu La.
22	Demu Jong ..	Kongbu Lunang.	15	243	The route crosses the Demu La at starting. A stream flows from the Demu La which is crossed $\frac{1}{2}$ mile from Kongbu Lunang, where there are 140 houses, 3 monasteries and good cultivation. There is a short court, open in summer from here to Gyala Sindong over the Gyala.

ROUTE No. 52—*contd.*

23	Kongbu ..	Tongjuk Jong	13	256	At 12 miles there is a bridge over the stream to cross which the permission of the
Jongpon is necessary.					
	Tongjuk Jong	Namding Phukpa.	6	263	
25	Namding Phukpa.	Poh Tollung ..	12	275	The road crosses the Pohtungdo Chu by a bridge. The Pohtungdo Chu issues from the
Phodangdo La and here joins the stream from Kongbu Lunang. The road is quite impassable for four-footed animals.					
26	Poh Tollung ..	Dorjiyu Jong	16	291	The stream falls into the Tsangpo at 14 miles, and the route crosses to the right
bank at 15 miles. Besides the Jong there is a gumpa with 10 or 15 lamas. The roads are very bad.					
27	Dorjiyu Jong.	Pango ..	3	294	At 1 mile cross to the left bank and ascend the hill of Dorjiyu Jong to Pango, 1 mile
from the river. Tsenchuk Gumpa (30 lamas) is here.					
28	Pango ..	Khin Khing ..	6	300	Pass Pangshing (15 houses) at 1 mile. There is a gumpa (2 houses) at Khin Khing.
29	Khin Khing ..	Phuparong Gumpa.	8	308	At 2 miles cross to the right bank by a rope; it is called "Bring" in Tibetan
Phuparong is 1 mile from the Tsangpo.					
30	Phuparong ..	Tambu ..	3	311	Re-cross the river. There are many houses at Tambu.
31	Tambu ..	Hora ..	7	318	The road ascends a steep hill to Rinchenpung Jong and gumpa (3 miles). From
here a road runs to Kundu Phodang. The route however crosses by a cane bridge to the right bank at 1 mile and runs to Hora.					

ROUTE No. 52—*contd.*

32	Hora	..	Margang	..	4	322	A gompā containing 30 priests and 15 nuns.
33	Marpang	..	Yardong	..	6	328	30 houses and a gompā. Route No. 53 joins in here.
34	Yardong	..	Pepang	..	6	334	Cross a stream from the Doshong La at 2 miles and ascend a hill to Pateng. Cross the
Tsangpo to Bepung (25 houses). 3 miles north-east is Giling Gompā and 50 houses.							
35	Bepung	..	Pangodudung	..	3	337	Recross the river as at the end of the last stage and then to Pangodudung, a large village with 50 or 60 houses and a monastery attached to a jong.
36	Pangodudung	..	Korba	..	8	345	The route crosses the river to the left bank and ascends a hill covered with jungle to
Korba (11 houses), 1 mile from the Tsangpo.							
37	Korba	..	Mayum	..	7	352	Cross a stream at one mile and then over level ground to the Tsangpo. Finally an
ascent to Mayum, 5 houses and no cultivation.							
38	Mayum	..	Satong	..	7	359	Cross a stream at 1 mile. The road is very steep here.
39	Satong	..	Angi	..	8	367	A big stream from the direction of Tsari falls into the Tsangpo, and lower down another from Yangsong Neh which is crossed by a fine bridge to Angi.
40	Angi	..	Shinging	..	7	374	Cross a stream by a stone bridge. From the top of the hill above Shinging (60 houses) there is
a short cut to Rikar, stage 43.							
41	Shinging	..	Hanging	..	3	377	20 houses; on the opposite bank there are about 30 houses and large cultivated fields
of rice and kodo.							

ROUTE No. 52—*concl'd.*

42	Hanging	..	Puging	..	7	384	Pass Shobang, 10 houses at 2 miles. A large place of 100 houses 1 mile from the river;
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opposite on the right bank there are 50 more houses. There are many pine trees, apples and plantains.

43	Puging	..	Rikar	..	8	392	Cross 2 or 3 streams and ascend a hill covered with jungle to Rikar.
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44	Rika	..	Keti	..	7	399	Cross over a stream by a bridge. There are many cotton fields about here. The roads being
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very bad the people never use horses. Keti (20 houses) is 2 miles from the river.

45	Keti	..	Shimong	..	10	409	There are three villages side by side. In Shimong, 1 mile from the bank of the
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river, there are 140 houses; on the east is Mongri (100 houses); and on the south there is a village of 30 houses.

46	Shimong	..	Mobuk	..	9	418	After ascending a hill on the left, the route reaches Mobuk (60 houses) whence the
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Tsangpo is not visible. The soil produces rich crops.

47	Mobuk	..	Tarpin	..	8	426	Cross a stream at 3 miles and then ascend and descend to Tarpin (80 houses), 3 miles from
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the Tsangpo.

48	Tarpin	..	Onlet	..	6	432	The road is over level ground and crosses a stream. North of Onlet (90 houses) there
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is a high snowy mountain whence a stream flows south to the Tsangpo at Miri Padam.

49	Onlet	..	Miri Padam	..	8	440	A place containing 100 houses, about 4 miles from the Tsangpo. It is well known market
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where traders from Yaser, Tsari and India bring their merchandize for sale.

The Nagong Chu joins the Tsangpo about 3 miles from Miri Padam.

The distance from Miri Padam to the British frontier is only about 35 miles, far as K. P. could ascertain.

Route No. 53.

FROM YARDONG TO CHAMNAK *viâ* DOSHONG LA.*Authority and date.*—Trigonometrical survey by K.P. in 1880-1884.*Epitome.*

General direction north-west. The road is impassable for animals. It is the shortest and easiest route from Pemakoichen to Kongbu. West of the Doshong La there is another pass, the Nam La, which is much higher and is covered with snow all the year round. Though difficult and distant, many pilgrims travel it in summer. From the Nam La to Pateng is 6 or 7 days' journey (Lama Seraw Gyasho).

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
	..	Yardong ..	..	..	See route No. 52, stage 33.
1	Yardong ..	Gonda ..	10	10	Follow the road to Pe- pung for 2 miles and then near Pateng, turn up the stream coming from the Doshong La.
2	Gonda ..	Ani Pasam ..	14	24	The Doshong La stream joins another stream just after Ani Pasam where the bridge is built of stone and wood.
3	Ani Pasam ..	Pangkangkong- ma.	11	35	Ascend 3 miles and then proceed over level ground to the top of a snow-clad mountain. There is an inn and shelter cave between Ani Pasam and Pangkangkongma. K.P. followed the course of the Doshong La.
4	Pangkangkong- ma.	Kungmen Gyalmu.	12	47	A big lake only: no trees are found higher up than this.
5	Kungmen ..	Pheodoshong ..	6	53	Cross the Doshong La, at the foot of which are two cattle-sheds. A village of 15 houses on the Tsangpo, one day's journey from Gyala.

ROUTE No. 53—*concl'd.*

6	Pheodoshong ..	Shoka ..	7	60	....
7	Shoka ..	Chemnak ..	9	69	See Route No. 52, stage 18.

Route No. 54.

[FROM GIAMDO (JUNGLAM) TO CHAMNAK (TSANGPO RIVER).

Authority and date.—Trigonometrical survey by K.P. in 1880-1884.

Epitome.

General direction south-east. The route follows the Giamda Kongbu Chu practically the whole way. The road between Giamda and Nyangt set is very bad.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
	..	Giamdo ..	..	..	See route No. 2, stage 62.
1	Giamdo ..	Kongbu Nabalb.	22	22	Three jongs and many houses. The soil yields rich crops of wheat, barley, oats and peas, and supports many cattle. The route follows the left bank of the Kongbu Giamdo Chu.
2	Kongbu Nabalb.		7	29	Cross to the right bank.
3	..	..	9	38	K.P. found the road to Nyangt set very bad. At the end of stage 3 are 6 or 8 houses $\frac{1}{2}$ mile from the stream.
4	..	Nyangtset ..	16	54	25 houses and a <i>gompa</i> . Rich crops and abundant wood.

ROUTE No. 54—*contd.*

5	Nyangteset ..	Nyangka ..	12	66	....
6	Nyangka ..	Tashi Rabea ..	8	74	40 houses on both sides of the stream; soil very rich.
7	Tashi Rabea ..	..	11	85	K.P. slept in the jungle at the end of marches 7 and 8, and in a ruined house amid
8		..	10	95	
9		..	9	104	
other ruins at the end of 9.					
10	..	Phuchushergi Lhakhang.	12	1	There is a lake here on the north side of the section.
11	Phuchushergi Lhakhang.	Bank of the Tsangpo.	6	122	Leaving the stream on its left, the route turns towards the Tsangpo.
12	Tsangpo ..	Chamnak ..	8	130	Cross the Tsangpo to Chamnak. See route No. 52, stage 18.

Route No. 55.

FROM CHOMORAWA (JUNGLAM) TO CHETANG.

Authority and date.—Trigonometrical survey by A. K. in 1879-82 and by Lama U. G. in 1883.

Epitome.

This path is named the Uri Bar-Khor and is only used by pilgrims from Lhasa when going round the range of mountains to the south. This pilgrimage is so obligatory that even the Grand Lama has to perform it. As far as Khatha the general direction is south-west, and from Khatha westerly along the Tsangpo. The road is wide throughout but generally rough and stony.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
..	..	Chomorawa ..	..	..	See route No. 2, stage 65.

ROUTE No. 55—concl'd.

1	Chomorawa ..	Jingcho Gampa	20	20	The road follows the right bank of a stream from the south for $7\frac{1}{4}$ miles, and then ascends slightly to a pass, the Magu La. From the pass the route is along a stream for $12\frac{3}{4}$ miles. Dense forests clothe the hillsides and the open part of the valley is filled with cultivation, chiefly barley.
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2	Jingcho ..	Hoka Jong ..	$5\frac{1}{2}$	$25\frac{1}{2}$	The road continues to follow the stream for $3\frac{1}{2}$ miles and then crosses it by a wooden bridge, 25 paces long. Passing Kanadeba at 4 miles, Hoka Jong, which is surrounded by 250 houses, is reached at $5\frac{1}{2}$ miles. The stream is followed the whole way.
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3	Hoka ..	Khatha 11,260 feet.	$14\frac{1}{2}$	$39\frac{1}{2}$	After $\frac{1}{4}$ mile, the road crosses the stream which a little lower down joins the Mik-chu flowing north-east to south-west into the Tsangpo. At $5\frac{3}{4}$ miles the road crosses a spur whence it descends for 4 miles along a stream to the village and stream of Ya Chu. The road crosses the Ya Chu by a wooden bridge 30 paces long and passing over a spur descends to Katho (5 houses) on the left bank of the Tsangpo.
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4	Khatha ..	Daisithi ..	$14\frac{1}{2}$	$53\frac{1}{2}$	The route turns westwards up the left bank of the Tsangpo, and, after crossing a stream at $5\frac{1}{2}$ miles, reach Zangri Khammedh Gampa and 20 houses at $8\frac{1}{2}$ miles and Zangri Jong and 30 houses at $9\frac{1}{2}$ miles. At Zangri Jong the road leaves the river and ascends the hills on the right to Daisithi Gampa (40 houses), a place of pilgrimage.
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5	Daisithi ..	Hon Ngari Thanjang (Naridachang).	$9\frac{3}{4}$	$63\frac{1}{2}$	After descending for $2\frac{1}{4}$ miles, the road reaches the river which it follows to Hon-Nagri Thanjang Gampa, a large building on an isolated mound surrounded with gardens, trees and some 200 houses. Grass and fuel procurable.
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6	Hon Ngari Thanjang.	Chetang 11,480 feet.	41	$67\frac{1}{2}$	After $1\frac{1}{4}$ miles the route crosses the river, which is 200 paces wide and very deep, to Niako Dukka (ferry) where the owners of the ferry boats dwell. The road then follows up the right bank for 3 miles to Chetang which consists of 1,000 houses, a bazaar, gampa, and fort. See routes 47, 50, 51 and 52.
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Route No. 56.

FROM MA-NEK'RE (UPPER BURMA) TO LHO-JONG *viâ* RIMA.*Authority and date.*—F. NEEDHAM in 1886 and A.K. in 1879-82.*Epitome.*

Along this route as far as Rima the hills are very rocky, rugged and precipitous, and with exceedingly narrow valleys; cultivation is plentiful to the extent of ground available, and not only are crops abundant, but the climate admits of two harvests a year. General direction north-west.

From Rima onwards as far as the Ata-Gang La, the hills are very rocky, rugged, and precipitous, and cultivation the same as up to Rima. Up to Isatodh (stage 10) rice fields are numerous, and, as far as Chutang (stage 15), the hill-sides are covered with forest trees with the exception of the cultivated spots in the vicinity of villages. North of Ata Gang La the country is the same as that along the Junglam and only yields one crop annually. The route follows the Rong Thod Chu as far as Chutang (stage 15). Thence through Nogong and Dainsi districts, from the Ata Gang La (stage 33) to Diu (stage 22), the road is, generally speaking, good. But in the Pashu district (stages 24 to 30) the road is undulating, rugged and stony. At Chukpodesa (stage 31) the road meets the Junglam.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Ma-nek're ..	Camp 1 ..	11	11	Leaving the last camp in Miju territory, the path after $\frac{1}{4}$ mile, crosses the border line, 160 miles
from Sadiya; the boundary is an open piece of undulating grassy country called Ma-nek're. Immediately afterwards the Yepuk stream, fordable in January, is crossed. The path then runs through a district known as Walon passing a Tibetan village on the right bank; the Dingti, a considerable stream from the mountains of Bor Khamti, falls into the Zyul Chu on the left bank, on which a little higher up, stands the small village of Tini (2,700 feet). Four miles from the start a rocky defile, 400 yards long is reached; up to this point the path is narrow and slippery on account of fallen pine needles. Subsequently the valley broadens and the path is good. At this camp space is very limited; wood scarce and water bad.					
2	Camp 1 ..	Camp 2 ..	9	20	After about a mile a very large hill stream, the Krupti (unfordable), is crossed by a log
thrown across. Soon after the small village of Konde is passed. At about 7 miles a log spans the Ko-chu unfordable; a path leads up into Tibet along the banks of this stream. The track at about 8 miles passes a village named					

ROUTE No. 56—*contd.*

the path passes Isamedh at $6\frac{3}{4}$ miles, and fords a stream opposite Rangyul (5 houses) at $11\frac{1}{4}$ miles.

11	Isatodh	$7\frac{1}{4}$	80	As before; at $4\frac{1}{2}$ miles there is an abrupt and difficult descent of 300 paces with steps leading down; A.K. was informed that a circuitous route for laden animals exists. At $5\frac{1}{4}$ miles the path fords a stream from the north-east and $2\frac{1}{4}$ miles further on there is an empty house
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12	..	Camp	..	$4\frac{1}{4}$	84 $\frac{1}{4}$	After crossing a stream at 1 mile the road ascends by an easy gradient for 3 miles along a very bad path to the junction of two streams, one from the north-west and the other from the north-east, forming the Rong Thod Chu. A difficult descent of $\frac{1}{2}$ mile leads to the left bank of the stream from the north-east which is crossed by a rope bridge, 40 paces long. This bridge consists of two stout ropes stretched parallel to each other with cross ropes tied to them and hanging at convenient distances, on which planks are laid. Camp on right bank.
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13	Camp	..	Modung	..	$5\frac{1}{4}$	89 $\frac{1}{4}$	The route is along a bad path which lies a little above the bed of the stream.
14	Modung	...	Ata	..	7	99 $\frac{1}{4}$	Continuing upstream the road soon after leaving Modung crosses two streams and at $3\frac{1}{4}$ miles passes opposite the mouth of a large stream from the east, 8 miles up which, on the right bank, is Sagu village. At $5\frac{1}{4}$ miles Lasi (3 houses) is passed and at 6 miles, a stream is forded. Ata (7,950 feet) is the most northern village in Zayul, where cultivation is carried on. Grain is cheap and the inhabitants of Nagong come here to purchase.

15	Ata	Chutang	..	9	105 $\frac{1}{4}$	The path crosses the stream which $1\frac{3}{4}$ miles further is seen to issue from a glacier. The path winds for $5\frac{1}{4}$ miles along the south-eastern side of the glacier, which stretches from the north-west and by a stiff ascent of $1\frac{1}{4}$ miles reaches a small stream and, after a further rise of $\frac{3}{4}$ mile, Chutang camping-ground is reached.
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16	Chutang	..	Ata Gong La..		$8\frac{1}{2}$	114 $\frac{1}{4}$	A steep ascent of 3 miles leads to a pass, and is followed by a descent of $1\frac{1}{2}$ miles to the southern edge of the continuation of the glacier mentioned in the last stage. The path crosses it for $\frac{3}{4}$ mile, and, following the western edge for a mile, reaches the Ata Gang La over the Neching Gangra snowy range. Proceeding $2\frac{1}{2}$ miles over the glacier and for $1\frac{3}{4}$ miles along a stream issuing from it, the
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ROUTE No. 56—*contd.*

path leads to a small unoccupied house built for the accommodation of travellers at an altitude of 14,690 feet.

17	Ata Gang La ..	Lhagu ..	6 $\frac{1}{4}$	120 $\frac{1}{2}$	The path follows the right bank of the stream which lower down is called the
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Nagong Chu. At 3 miles the road fords a tributary stream, 50 paces wide and 2 feet deep. There is a little cultivation at Lhagu (20 houses) and grass and firewood are abundant. The river here forms a large pool on account of a glacier from the west impeding its course, but it finds an outlet under the eastern extremity. Road level.

18	Lhagu ..	Shiuden ..	11 $\frac{1}{4}$	131 $\frac{1}{2}$	After $\frac{3}{4}$ mile the path reaches the above mentioned glacier and skirts it for a mile. Continu-
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ing along the right bank of the river, the path crosses a stream, 25 paces wide, at 3 $\frac{3}{4}$ miles and reaches a village of 10 houses at 4 $\frac{1}{4}$ miles. It then for 3 $\frac{3}{4}$ miles runs along a spur up a slight ascent to the small hamlet of Khansar, and 2 $\frac{1}{4}$ miles further reaches the temple of Nagongjho. Descending for $\frac{1}{2}$ mile, the route crosses a stream by a wooden bridge, 30 paces long. This stream, flowing westwards, joins the Nagong Chu (Dihang or Tsangpo river) a little above a wood and masonry bridge, $\frac{3}{4}$ mile in length, over the latter. For some miles above and below the bridge the river flows in a low level valley and presents the appearance of a broad sheet of water. Ascending for $\frac{1}{2}$ mile, the road reaches Shiudan Gompa on high level ground overlooking the river. This gompa contains 100 Dabas and is surrounded by 150 houses. A route branches off from here to Sanga Chu Jong to the east.

19	Shiuden ..	Nankhazod ..	8	139 $\frac{1}{2}$	The path follows the river bank for 6 $\frac{1}{4}$ miles to Ranya (10 houses), and at 8 miles reaches a stream flowing westwards into the river at Rahu (8 houses), 2 miles off. At Rahu a shorter road, practicable for foot passengers only, passes through Po-med and Kongbu to Lhasa. The road crosses the stream, which is 20 paces wide, to camp. Grass and firewood abundant.
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20	Nankhazod	13 $\frac{1}{4}$	153	Re-crossing the stream to the left bank, the path follows it in a northerly direction for
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11 $\frac{1}{2}$ miles to its source, a small lake. One mile further on a low pass is crossed after a slight ascent. Nagong district extends from the Ata Gang La to this pass. At $\frac{3}{4}$ mile beyond the pass, the road crosses a stream coming from the west and flowing alongside the route. Grass and firewood abundant.

21	..	Dongsar ..	7 $\frac{1}{2}$	160 $\frac{1}{2}$	The path follows the left bank of the stream. At 5 $\frac{1}{2}$ miles is Gonkha (5 houses), and at 7 $\frac{1}{2}$
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ROUTE No. 56—*contd.*

miles a wooden bridge, 30 paces long, crosses a stream. Dongsar (a *gompa* and 40 houses) is on the left bank of this stream and close to the road; Au-takpa, also a *gompa* and 40 houses, is 2 miles higher up on the same bank. Dongsar is situated in an extensive and well-cultivated valley.

22	Dongsar	..	Diu	11	171½	The path continues along the left bank. At 6½ miles a bridge, 45 paces long, leads
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across the stream to Dongo Gompa on the right bank. A road leads from this place to Pashu Jong, 50 miles due north. The road from the Ata Gang La to Diu (8 houses) is, generally speaking, good. Grass and firewood abundant.

23	Diu	..	Bung-yu La ..	6½	178	The path follows the stream for 2½ miles passing Bang-yu (8 houses) at 2 miles.
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The main stream then turns to the east and flows into the Gama Nu Chu. The path from here follows a tributary stream for 4 miles to the foot of the Bung-yu La, the boundary between Dainsi and Pashu. Grass and firewood abundant.

24	Bung-yu La	..	Camp 1	..	8½	186½	Cross the Bung-yu La by an ascent of one mile over snow and a descent of 1½ miles to
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a stream which is followed for 5¾ miles to camp. Grass and firewood abundant.

25	Camp 1	..	Camp 2	..	11	197½	The path continues along the left bank for 2¾ miles and then crosses to the right
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bank by a wooden bridge, 25 paces long. 4½ miles further on, the stream turns west at its junction with another from the north. 4 miles up this latter stream is the camping-ground; grass and firewood abundant.

26	Camp 2	..	Tapsing	..	7½	204½	The road fords a stream at 1½ miles and after a steep ascent gains the top of a pass at
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2¾ miles, whence it follows a stream down to Tapsing (5 houses). Grass and firewood procurable. Between Bung-yu (stage 23) and Tapsing, there are no villages or cultivation.

27	Tapsing	..	Camp	..	5½	210	The route for 1½ miles lies along the stream till it falls into a larger one from the
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west. A route leads down this stream to Pashu Jong, 16 miles north-east. Crossing this stream (20 paces wide, 1½ feet deep) the path follows another for 4 miles to the foot of a pass. Grass and firewood procurable.

ROUTE No. 56—*concl'd.*

28	Camp ..	Giokjam ..	8½	218½	The road ascends gradually for 1½ miles to the pass, and, descending thence for 7 miles
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along a small stream, crosses a large one by a bridge, 45 paces long, named Giok Jam. Near this bridge there are several hamlets on both banks and some cultivation. A toll of 4 annas is levied from each passenger across the bridge.

29	Giok Jam ..	Niopa Gampa	11	229½	The road ascends along a stream from the north-west passing Baimbu Gampa and
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Rango (10 houses) at 1½ and 8 miles respectively, and crossing a stream at 9 miles. Grass and firewood procurable.

30	Niopa ..	Ong Gampa ..	13	242½	At 1¾ miles a slight ascent leads to a pass which is the boundary between the Pashu—
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Lho-jong districts. The path then runs for 7¾ miles through a narrow valley and over a pass by a slight ascent; from the pass the road descends along a stream for 3½ miles to Ong Gampa. From stage 21 to this point the road is undulating, rugged and stony.

31	Ong Gampa ..	Lho-jong ..	8	250	The road follows the stream for 6 miles to Chukpodesa at its junction with the Jung-
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lam (see Route No. 2, stage 43); two miles to the north and on the left bank of the united streams is Lho Jong.

Route No. 57.

FROM RIMA TO ATUN-TSE (YUNNAN).

Authority and date.—Report by E. C. LITTON, 1904.*Epitome.*

From Rima a caravan route crosses the Tila La (see route No. 58) to Menkong where the Salween is crossed by a rope bridge. Thence it runs into Yunnan to Chung-tien, crossing the Mekong at Kuinta (see Route No. 60) village, just below Atun-tse by a rope bridge. From Menkong there is fair communication with Gartok (Kiang-ka), and a route runs to Chiamdo (see Route No. 59).

Route No. 58.

FROM GARTOK (KIANG-KA) TO RIMA.

Authority and date.—Trigonometrical survey by A.K. in 1879-82.*Epitome.*

Along this route the hills are very rocky, rugged and precipitous, and with exceedingly narrow valleys; cultivation is plentiful to the extent of ground available, and not only are crops abundant but the climate admits of two harvests a year. The path is narrow, stony, undulating and rugged; general direction south-west.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
1	Gartok	Lao	12½	12½	See Route No. 2, stage 24. The route follows the Lhasa road for 3¼ miles, from which point a footpath follows up a stream from the south-west. At 5¾ miles, the road gains a pass by a slight ascent and after following a ridge for 1½ miles the road descends gently for 5¼ miles along a stream flowing in a narrow valley. Lao is a village of 20 houses.
2	Lao	Jio	15	27½	The route continues down the valley for 8 miles to the Chiamdo Chu (Mekong). The

valley is well cultivated and has a number of houses scattered about it. The road then follows the left bank for 1½ miles to Samba Dukha (ferry), 9,450 feet, where there are 5 houses belonging to the men in charge of the bridge. The arrangements for crossing consist of a thick leather rope stretched very tight from an elevated point on one bank to a lower level on the opposite bank. The rope is secured round stout poles half buried in the ground, and is strong enough to bear the weight of men and animals. The method of crossing is very simple. A rope is carefully fastened to a niche at one end of a semi-circular (bent) piece of wood, the latter is brought on to the thick leather rope, and the former, after being securely attached round the body, is fastened to the other end of the bent wood which is then made to slide down to the opposite bank. The length of this bridge is about 130 paces.

From this bridge the road leads down the right bank for 3½ miles and then turns westwards up a stream to Jio which contains 15 houses. The path is narrow, rugged and stony.

ROUTE No. 58—*contd.*

3	Jio	..	Cha Chiorten, 10,640 feet.	15	42½	The road is up a steep ascent for 2 miles to a spur on which Jio Gampa stands; continuing to ascend for ¾ mile the Jio La is reached. The path then descends for 2¼ miles to a hamlet of 3 houses, whence it follows a stream from the north-west which it crosses to the right bank after 2¾ miles. The stream is 15 paces wide and 2 feet deep. At 12½ miles, the road crosses a spur which is reached by a slight ascent. Cha Chiorten (30 houses) is on the right bank of a stream rising from a lake near the Ghotu La (see stage 5) and following east towards the Chiamdo Chu, and is one of the sacred spots of Tibet. Two miles south is a <i>gompa</i> of 30 Dabas. Elevation 10,640 feet.
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4	Cha Chiorten ..	Camp 1 ..	10¼	52½	The road follows along the stream through a thick forest to an encamping-ground.
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5	Camp 1 ..	Camp 2 ..	12¼	65	At 3¼ miles the path reaches a lake from which, by a steep ascent of 1¼ miles, it rises to the Ghotu La. A difficult descent of 2 miles leads to a small lake, whence flows a stream which the road descends along for 5¾ miles to camp in a forest of deodars. A. K. crossed the Ghotu La on the 31st of March and found this stage covered with snow and both lakes frozen. He was compelled to halt for two nights owing to ophthalmia caused by the glare.
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6	Camp 2 ..	Dayul Gampa	5¼	70¼	Continuing along the right bank of the stream, the road at 5 miles passes Dayul village (15 houses), and half a mile further on crosses a stream, 60 paces wide and 3 feet deep, by a wooden bridge. From here an ascent of ¼ mile leads to Dayul Gampa which is surrounded by 100 houses including the residence of a Jongpon. Dayul is in a narrow valley in the midst of thick jungle abounding with wild sheep and musk deer. There are patches of cultivation here and there.
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7	Dayul ..	Koli ..	11¼	82	The road crosses a stream at ½ mile and a spur from the Koli La at 5¾ miles; it then ascends 2¼ miles to the pass itself and descending 1½ miles follows a stream for 1¾ miles to Koli, containing 8 houses.
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8	Jol ..	Jior ..	4	86	The road follows the right bank for 2½ miles; it then crosses a small stream past Jior Gampa (3¼ miles) to the village (25 houses).
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ROUTE No. 58—*contd.*

9	Jlor	..	Thangshu Dukha.	5½	91½	A stiff ascent of 5½ miles to the Giamoa Nu Chu (Salween), 7,160 feet. The river is 200 paces wide, deep and rapid and is crossed on planks which are propelled by oars and kept from being carried down stream by some of the boatmen holding on to a rope stretched across the river. ¼ mile from the right bank, at the end of the stage, is a small <i>gempa</i> . Firewood and grass scarce.
10	Thangshu	..	Yu ..	8½	100	The road ascends for 6 miles past a village of 15 houses (3¼ miles to a spur whence it descends to Yu. Grass scarce; firewood abundant.
11	Yu ..	..	Ji ..	5½	105½	The road runs to Hakha (15 houses) at 4½ miles and then descends to Ji at the junction of streams from the north and south with a third from a small lake below the Tila La (stage 15).
12	Ji ..	..	Camp	8½	114	Proceeding towards the Tila La, the road crosses the stream, 25 paces wide and 2½ feet deep, at ½ mile and following up the left bank to camp. Grass and fire wood in abundance.
13	Camp	..	No-yu	11	125	The path continues up the stream to No-yu (20 houses) which is surrounded by thick jungle.
14	No-yu	..	Camp	9½	134½	Road as before, passing Niakho (15 houses) at 7¾ miles and crossing a stream to camp.
15	Camp	..	Camp	11½	145½	For the first 2½ miles as before; the road then ascends 1¼ miles over snow (A.K. crossed on 20th April) to the Tila La (16,110 feet); the path then descends 1½ miles over snow to a stream coming from the pass and, following it for 6 miles through thick forest, crosses a tributary stream to camp.
16	Camp	..	Camp	11½	157	The track follows the stream passing Rika (6 houses) at 3¼ miles and a small hamlet at 4½ miles. Camp near a small hamlet (3 houses) at the junction of a stream from the south. Grass and firewood abundant.

ROUTE No. 58—*concl'd.*

17	Camp	..	Chikung	..	13½	170½	The road follows the stream for 2½ miles to Dowa Gampa (8,300 feet) surrounded by 25
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houses and situated near the confluence of the stream with the Zayul Chu from the north. From here the route branches off to Sanga Chu Jong about 50 miles to the north, the residence of two Jongpons and said to have 250 houses near it. Continuing for 10 miles along the left bank of the Zayul Chu, and passing some small hamlets and a rope bridge the road crosses a stream, 30 paces wide, and a mile further on another, 25 paces wide and 2 feet deep. Opposite Chikung (4 houses) and on the right bank is Gawa (15 houses) and some patches of cultivation. Grass and firewood in abundance.

18	Chikung	..	Camp	..	10½	181½	After running along the left bank for 8½ miles the road crosses to the right bank by a wooden
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bridge. The river is here 80 paces wide and is deep and rapid. At 9½ miles Dabla (10 houses), and at 9¾ miles a stream from the north, are passed. Camp at a small hamlet. Grass and firewood abundant. On this stage paddy fields begin to be met with.

19	Camp	..	Camp	..	17½	199½	The road follows the river which it crosses twice, passing a small hamlet on the left
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bank opposite which is a Lhakhong (temple). Camp at a small hamlet; grass and firewood abundant.

20	Camp	..	Rima (Shikha)	..	18½	213	At 2½ miles the path crosses a large stream, 65 paces wide, and at 2¾ miles crosses to
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the left of the Zayul Chu by a wooden bridge (100 paces long). 3 miles further on the path fords a stream from the south-west. At 12¾ miles the Zayul Chu joins the Rong Thod Chu and half a mile below that a rope bridge spans the river. Shikha, the winter residence of the officers of the Zayul district, is half a mile below the bridge on the left bank and lies in the lands of the village of Rima. See route No. 56, stage 3.

Route No. 59.

FROM CHIAMDO (JUNGLAM) TO MEKONG (YUNNAN).

Authority.—Itineraries of the Abbe Desgodins.

Epitome.

Note.—The Abbé calculates the average length of his day's march at 8 leagues (20 miles).

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ROUTE No. 59—*contd.*

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
	...	Chiamdo	..	..	See route No. 2, stage 37.
1 2 3 4	Chiamdo	..	..	..	From Chiamdo the route follows the right bank of the Lan-tsan Kiang (Mekong) for 3 days, and on the 4th day crosses the lofty range separating this river from the Lautse Kiang (Salween or Giama Nu Chu) and the source of the Ou-kio (Oi-Chu), which latter after describing a semi-circle descends by the plateau of the vast range, where not a vestige of vegetation is to be seen, into a fairly large plain, bounded on each side by snowy peaks.
5	..	Ponda	..	..	The route is along the left bank of Ou-kio to Ponda (on right bank), the river being crossed by a ford; the Abbé had to swim as the stream was swollen by rain. There is a small lamasery and a few fields which only yield a crop about once in ten years as they rarely ripen.
6	Ponda	Tinto	..	..	Continue down the river and at the end of the stage cross by a wooden bridge at Tinto. Below Ponda the plains disappear.
7	Tinto	Dzo Jong	..	..	On leaving Tinto the path enters a narrow gorge on the left bank.
8-12	Dzo Jong	Tchayul	..	..	Following the Ou-kio, Tchayul on the right bank is reached in five marches. (This seems to be the Dayul of Route No. 58, stage 6.)
13-16	Tchayul	Petou	..	..	Still along the Ou-kio. From Petou lamasery the Ou-kio flows in a southerly direction for nearly a day's march and then turns sharply northwards and again still more sharply southwards, and then, burying itself in the mountains in a westerly

ROUTE No. 59—*concl'd.*

direction, finally falls into the Loutse Kiang (Salween) a few leagues from Mekong. (*Note.*—The map shows the Ou-kio by a dotted line as probably falling into the Mekong, but, from this account, it would appear to fall into the Salween).

17-1	Petou	..	Mekong	From Petou the road leaves the Ou-kio and crossing the mountains to the south-west reaches Mekong in three marches. It crosses the Pong-le valley (5 rich villages) and then passes over the Tong-di La to the Salween.

Route No. 60.

FROM GARTOK (KIANG-KA) TO ATUN-TSE (YUNNAN).

Authority—Itineraries of the Abbe Desgodins.

Epitome.

Note.—The Abbé calculates the average length of his day's march at 8 leagues (20 miles).

There is a description of the route from Atun-tse to Yer-ka-lo in Routes in Yunnan No. 106 by Captain R. Davis, 1900.

No. of stage.	NAMES OF STAGES.		DISTANCES.			REMARKS.
	From	To	Inter-mediate.	Total.		
..	..	Gartok	..	..	..	See route No. 2, stage 24.
1	Gartok	Bongni	..	..	..	The route runs in a southerly direction to the district of the salt mines near Yer-ka-lo,
2	Bongni	Gochu	..	..	..	Between Bongni and Gochu, the Kio-tsa La, which marks the boundary between

Tibet proper and Batang is crossed. The salt mines district comprises several villages closely situated to each other on both banks of the Lantsan Kiang (Mekong). From north to south they are—Guma, Yer-ka-lo,

ROUTE No. 60—*concl'd.*

3	Gochu	..	Yer-ka-lo	..	..	..	The Kiong-ling and Pouting on the left bank, and Kio-tien-ka Dachu and Kiata on the right bank. At Yar-ka-lo Route No 61 from Batang joins in.
4-9	Yer-ka-lo	..	Atun-tse	..	71	..	See routes in Yunnan No. 106. About one march below Atun-tse the road again meets the Mekong at Kuinta village where there is a rope bridge (see Route No. 57).

Route No. 61.

FROM BATANG TO YER-KA-LO (YUNNAN).

Authority—Itineraries of the Abbe Desgodins.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
	..	Batang	..	..	See Route No. 2, stage 19.
1	Batang	Tchrou-pa-long (Ria-pa-rong).	22½	22½	
2	Tchrou-pa-long	He-tao (Terga-ting).	17½	40	
3	He-tao	Ho-kou	11½	51½	
4	Ho-kau	Gnia-gnitling	17½	68½	

ROUTE No. 61—*concl'd.*

5	Gnla-gnitling ..	Ngeu-Klop ..	17½	86	
6	Ngeu-Klop ..	Yer-ka-lo ..	20	106	See Route No. 60.

Route No. 62.

FROM LHASA TO TA-CHIEN-LU *viâ* THE CHOMORA LAKE AND JYE-KUNDO.

Authority and date—Partly by A.K. in the Trigonometrical survey of 1879-82.

This route is known as the *Changlam* and is the main artery of the tea traffic and principal trade route between Ta-chien-lu and Lhasa. The tea is carried on yaks which as far as Jyekundo come from the Chang-tang and thence onwards from Yokchen and Yalung. The general direction from Lhasa to Jyekundo is north-east and from there onwards south-east. The first portion is described in Route No. 1, stages 37 to 48. Thence the route is across the Chang Tang to Jyekunda. The distance from Chomora lake to Jyekundo is about 290 miles. From Jyekundo the country is rocky and mountainous, but although caps of snow are visible occasionally, the hills are neither lofty or precipitous; the road runs along moderate inclines; or, as in the famous yak-breeding districts of Yokchen and Yalung, over grassy undulations. Generally the road is ample in width but, in a few instances, as along the left bank of the Di Chu, the beasts of burden can only pass in single file; the track is, as a rule, good; along the Di-Chu it is stony and rugged. Rockhill describes the route as frequently extremely beautiful. There is cultivation at intervals; grass and water are plentiful from stage 2 onwards. The distance from Jyekundo to Ta-chien-lu is 414½ miles; so the whole distance from Lhasa to Ta-chien-lu is about 867 miles. The routes from Jyekundo to Ta-chien-lu only is described.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
	Lhasa ..	Thagurla ..	162½	162½	See route No. 1, stages 37 to 48.

ROUTE No. 62—*contd.*

	Thagur La ..	Jyekundo ..	290	452½	Jyekundo is an important trade centre. It contains some 200 houses and 40 shops
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owned by Tibetans and Chinese. Several important trade routes to all parts converge here. See route No. 64.

1	Jyekundo ..	Bhenche ..	14½	466½	The road runs in a southeasterly direction past Tang Gompa (30 Dabas) at 3½ miles to Bhenche Gompa (150 Dabas) near which are 30 houses and about 40 nomad tents. Several streams, all fordable, are crossed. The road is good through a broad valley.
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2	Bhenche ..	Khansar ..	16½	483	The road follows up a stream to a low pass at 9½ miles leaving a <i>gompa</i> on the left at 2¼ miles. After traversing a narrow defile, the road descends gently for ¼ mile to a stream, issuing from the pass, which it follows to Khansar, a village of 25 houses. No trees or bushes are met with west of the pass crossed in this stage, but to the east there is a complete change and trees abound.
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3	Khansar ..	Dogung ..	15½	498½	Continuing down the valley the road crosses a stream from the south-west at 1¼ miles near some fields and a hamlet of two houses. At 2½ miles a second stream is crossed opposite which on the left bank of the main stream is Shiongo Gompa (30 Dabas). Half a mile lower down the stream falls into the Di Chu which here flows from the north-west in a narrow valley; in January it was frozen here and there, so that it could be crossed in places. The road follows the right bank past several villages and <i>gompas</i> including Siti (10 houses) at 8 miles and Donthok Gompa (50 "Dabas") near the extremity of a spur to the right at 12½ miles. At 12¾ miles a small stream is crossed. Dogung is a village of 10 houses where supplies, firewood and grass are procurable.
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4	Dogung ..	Sila, 10,390 feet.	13	514½	The path which at first is rather steep and ill defined, crosses a couple of streams and passes the small villages of Shao and Donti to Dwinthang Gompa on the left bank (7½ miles). A.K. crossed the river, which is 180 paces wide, on ice a little above the <i>gompa</i> which contains 100 "Dabas" and is surrounded by 100 houses. Continuing along the left bank past two hamlets, a "dukha" (ferry) is reached at 10¾ miles. The river is crossed in boats during the summer and there are a few boatmen's huts on the right bank. Supplies, firewood and grass are abundant at Sila (30 houses).
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ROUTE No. 62—*contd.*

5	Sila	..	Dolma Lhakhang.	11½	526½	The road continues along the left bank of the Di Chu passing many "gompa" and hamlets including Rarang (1½ miles), Chiti "gompa" (4½ miles), and Chingo "gompa" (11 miles). Dolma Lhakhang is a well-known temple surrounded by 30 houses. Losino, a village of 30 houses is ¼ mile to the north.
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6	Dolma	..	Chiri	18½	544½	The road follows the left bank of the Di-Chu for 2¼ miles and then diverges to the left up a steep ascent of 1½ miles to Kaphu Gompa. Continuing along the slope of the range the track passes Baga and Rara hamlets and crosses a stream. From Nagli Gompa at 12½ miles the road crosses a spur to a stream at 14½ miles, along which the road runs to Chiri (15 houses) where here is a hot spring. Firewood, grass and supplies procurable.
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7	Chiri	..	Dojam	13½	558	After following the stream for 4 miles the road crosses a spur and, passing Gainjo "gompa" and 60 houses at 5¾ miles and Jongu "gompa" and 50 houses at 7½ miles, runs to Dojam, a nomad camp at the junction of two streams. Grass and firewood abundant.
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8	Dojam	..	Jokchen	27½	585½	The road follows the left branch of the stream, crossing a small stream coming from the right, and by an easy ascent gains a pass (7½ miles) which is the eastern boundary of the Jokchen pargana of the Darge district. For the next 9 miles the road follows a stream issuing from the pass which it crosses several times. At 20¼ miles is another slight pass whence a descent of ½ mile leads to a stream which the route crosses and follows for 2 miles; 3¼ miles further on, there is a stream from the south. Jokchen "gompa" (200 houses and 100 tents) is on the bank of a stream. All these streams flow northwards and uniting with the stream from the Miri La (see below) empty into the Ja-Chu. They drain a generally level and open valley covered with rich pasturage which affords sustenance to large herds of yaks, sheep and goats belonging to nomads who are numerous in the valley.
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9	Jokchen	..	Yalung	24	609½	After crossing a small stream at ¾ mile the road reaches the stream from the Miri La at 3¼ miles; turning up it along a somewhat narrow valley for 7 miles, a steep ascent of 1½ miles leads to the pass which is the boundary between Jokchen and Yalung. After a steep descent of 1¾ miles and crossing streams at 16¼ and 18 miles, the road re-crosses the above mentioned streams below their junction at 22½ miles and follows the combined stream
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ROUTE No. 62—*contd.*

down for $1\frac{1}{2}$ miles to Yalung, a nomad camp of 50 tents. Fuel and grass abundant.

10	Yalung	..	Camp	..	19	628 $\frac{1}{2}$
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The route runs along the left bank of the stream which is now called the Yalung Chu. At 11 miles, about a mile up a side stream from the north-east is the residence of the ruler of Yalung, 5 or 6 houses and a number of tents. At $17\frac{3}{4}$ miles the road crosses to the right bank of the river which is here two feet deep and 35 paces wide. At 19 miles the road crosses a stream to a nomad camp of 10 tents situated in a small plain at the north end of which is a thick forest. Firewood and grass plentiful.

11	Camp	..	Ringo	..	25 $\frac{1}{2}$	653 $\frac{1}{2}$
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A gentle ascent of $2\frac{1}{2}$ miles leads to the top of a forest-clad spur at $7\frac{1}{2}$ miles where is the boundary between Dage and Rongbacha districts. The road continues along the spur for $1\frac{1}{2}$ miles and then follows a stream for 3 miles. A little further on a stream is crossed and after another two miles, the road meets yet another stream which it follows for $3\frac{3}{4}$ miles. $3\frac{3}{4}$ mile further on is Riphug; Lagarkhando, and Durkug villages are passed at 19 and $20\frac{1}{2}$ miles, respectively. At 22 miles the road crosses a stream, 30 paces wide and 2 feet deep. At $23\frac{1}{2}$ miles is Darge Gompa, one of the principal Gompas in Tibet. It contains 1,000 "Dabas" and 300 houses around it. Ringo (40 houses) is surrounded by extensive cultivation; and grass, firewood and supplies are abundant. The houses in the vicinity are well-built as timber is easily procurable. The road from Jyekundo to this place is generally good except along the Di-Chu where it is stony and rugged.

12	Ringo	..	Kanze	..	14 $\frac{1}{2}$	668
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At one mile the route crosses the Ja Chu near a village. A-K. found the river frozen in January but in summer it is crossed in boats. The road then runs along the left bank through fields and habitations past Bhiar "gompa" ($6\frac{3}{4}$ miles) and Nena "gompa" ($7\frac{1}{2}$ miles) to Kanze, the most important commercial centre of this part of Tibet. There is a large *gompa* inhabited by 2,000 "Dabas" and some 2,500 houses. It is the headquarters of the Rongbach districts. The road crosses several streams *en route*.

13	Kanze	9 $\frac{1}{2}$	677 $\frac{1}{2}$
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The road follows the Ja Chu for 6 miles and then turns north-east up a stream to a small village below a pass.

14	Dwindu	..	20 $\frac{1}{2}$	697 $\frac{1}{2}$
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The road ascends easily for 3 miles to the pass which is the boundary between Rongbacha and Dau. The road then descends past Jior "gompa" ($7\frac{1}{4}$ miles), Khansar ($8\frac{1}{2}$ miles) and two other villages to the junction of two streams near a

ROUTE No. 62—contd.

village with the residence of an official of the Dau Patti ($11\frac{3}{4}$ miles). The road from here follows the stream which is called by various names and is known as the Tau Chu at Nichong (see stage 18). At $12\frac{1}{2}$ miles is the residence of the Gialba (Raja) and 30 houses. After passing three more hamlets the road crosses a stream to Dwinda (25 houses) on the right bank. The path is stony and rugged.

15	Dwinda	..	Gori	..	15 $\frac{1}{2}$	713	The road passes several hamlets and fords several streams. At $14\frac{3}{4}$ miles it leaves the

Tau Chu temporarily. Grass, firewood and supplies procurable. Road for the most part good.

16	Gori	23 $\frac{1}{2}$	736 $\frac{1}{2}$	After crossing a stream at $2\frac{1}{4}$ miles, the road reaches a hamlet at $3\frac{1}{2}$ miles, close to a low

pass which forms the boundary between Dau and Dango. Dango "Gompa" (2,000 "Dabas") and 1,000 houses are past at $5\frac{1}{2}$ miles. The road then crosses a spur to Bathog (15 houses) on the right bank of the Tau Chu. From here the road again follows the Tau Chu which it crosses to the left bank at $19\frac{1}{2}$ miles. The river is here 70 paces wide and 3 feet deep. At $23\frac{1}{2}$ miles is a village of 10 houses. Grass, firewood and supplies procurable. Road stony and rugged.

17	..	Yathok	..	15 $\frac{1}{2}$	751 $\frac{1}{2}$	Continuing down stream, the road after a stiff ascent of $\frac{3}{4}$ mile gains a village on the

top of a spur forming the boundary between Dango and Tau ($1\frac{3}{4}$ miles). The road passes seven hamlets and crosses a tributary stream at $5\frac{1}{4}$ miles. All the villages along this march are on the left bank; the right bank is covered with forest.

18	Yathok	..	Giaro	..	21 $\frac{1}{2}$	773	The road crosses a stream to Dathok (10 houses) at $1\frac{3}{4}$ miles and fording streams at 4, and $6\frac{3}{4}$ miles, reaches Nichong "Gompa" (800 "Dabas") at $8\frac{1}{2}$ miles; $\frac{1}{4}$ mile below the 'gompa', the Tau Chu turns south-west and passing through the Niarong District falls into the Ja Chu. The road here leaves the Tau Chu and crossing one of its tributary streams at $13\frac{1}{4}$ miles, follows the latter up its left bank to Giaro. A number of hamlets are passed <i>en route</i> . From this point onwards, the hills are covered with thick forest of the same kind as that near Yalung.

19	Giaro	..	Khansar	..	22	795	The road, after passing a village of 15 houses at one mile and crossing streams at 3 and $5\frac{1}{2}$

miles, reaches the foot of the Minia La at 7 miles. A steep ascent of $\frac{3}{4}$ mile leads to the pass which is the boundary between the Tau and Minia

ROUTE No. 62—*contd.*

districts. A descent of $\frac{1}{2}$ mile leads to a stream issuing from the pass which the road follows, through an uninhabited district at first, to Khansar (15 houses), where there is some cultivation. A hamlet is passed at 20 miles. This stage lies through thick forests and the Minia La is frequented by robbers of the Niarong District.

20	Khansar	..	Shao	..	20 $\frac{1}{2}$	815 $\frac{1}{2}$	Continuing along the stream, the road crosses to the left bank at $\frac{1}{4}$ mile by a ford $1\frac{3}{4}$ feet deep

and 15 paces wide. At $4\frac{1}{2}$ miles a small gumpa is passed and at 7 miles a stream is crossed. At 10 miles the stream which the road has been following unites with another from the south-east, 15 paces wide and $1\frac{1}{2}$ feet deep. Crossing the latter it follows it up the left bank, passing several hamlets and streams *en route*, to Shao where it crosses to the right bank. Supplies, firewood and grass procurable. Cultivation is scanty on this side of the Minia La, and each hamlet has one or more old stone-built square towers erected in former times as safeguards against plunderers.

21	Shao	..	Tombadu	..	21 $\frac{1}{2}$	836 $\frac{1}{2}$	The road passes a stream and small hamlet at 3 miles, and after a stiff ascent of $\frac{3}{4}$ mile gains

a pass at $4\frac{1}{2}$ miles. A gentle descent of $\frac{1}{2}$ mile leads to a stream which the path follows for $1\frac{1}{2}$ miles. Crossing three more streams *en route*, the road reaches a pass by an easy ascent at $12\frac{1}{4}$ miles. After a descent of one mile the confluence of 3 streams is reached; the road follows this down to a hamlet at $17\frac{3}{4}$ miles and then, turning to the left, crosses a low pass 19 miles to Tombadu (10 houses). This stage is over undulating ground. Supplies, firewood and grass abundant.

22	Tombadu	..	Chithog Giachug.	..	22	858 $\frac{1}{2}$	The road crosses a spur at one mile and low passes at 6 and $8\frac{3}{4}$ miles; the latter is

called the Sama La. It then runs along an elevated tract for 4 miles, to the Gi La (14,690 feet) at $13\frac{1}{4}$ miles where it joins the Lhasa-Tachien Lu road (see Route No. 2, stage 2). From the Gi La the road descends along a stream to the posting stage of Chithog Giachug. Numerous streams are crossed in this stage, but no villages are met. The range which is crossed by the Gi La is covered with snow and the path down from it is stony and rugged and lies through a narrow valley.

23	Chithog	..	Ta-chien-lu	..	8 $\frac{1}{2}$	867	The road continues along the stream crossing another from the north-east at $\frac{3}{4}$ mile.

At 8 miles the stream is crossed by a bridge, 15 paces wide.

Ta-chien-lu is a small city situated in a very narrow T-shaped valley enclosed on all sides by snow-clad mountains which rise in precipices of stupendous height. The climate in winter is very severe owing to the snow falling continuously for weeks while in the hot weather it is comparatively warm owing to the place being surrounded by high mountains. It is a

ROUTE No. 62—*concl'd.*

great emporium for tea which is brought by coolies from the east and is despatched into Tibet on beasts of burden *via* Jyekundo. Except for small vegetable gardens there is no cultivation in the Ta-chien-lu Valley, and some small bushes only grow on the hill sides. Timber and firewood are brought down stream from the south and corn, etc., is imported from the east.

Route No. 63.

FROM LHASA TO SINING FU.

Authority and date.—ROCKHILL, 1890.

Epitome.

This is the main line of communication between Lhasa and the Koko Nor region. It is the route that the Dalai Lama used when he fled from the British on the capture of Lhasa. Sining Fu and Ta-chien-lu are, as it were, the two eastern gates of Tibet. Formerly the Sining Fu route was much used, but now there is very little traffic, it having been mostly destroyed by the Muhammadan rebellion in Kansuh some years ago. Over a large portion of the way, there would not appear to be any one well-defined track but several, all more or less parallel and ill-defined. The first portion of the route corresponds with that to Saitu as far as Giaro (Route No. 1, stages 36 to 51). Thence it strikes north-east over the Chang-tang to Jun, crossing the Di Chu Rab Dun. From Jun the route leaves the Chang-tang and descending into Mongolia passes the Koko Nor to Sining Fu. Approximately the distances are—

Lhasa to Giaro	..	..	193½
Giaro to Di Chu Rab Dun	..	..	212
Di Chu Rab Dun to Jun	..	..	195
Jun to Koko Nor	..	..	185
Koko Nor to Sining Fu	..	..	120
Total			905½

The route given below from Baron (Barong) to Sining Fu is based on Rockhills account in the Century Magazine commencing in November 1890, and entitled "An American in Tibet".

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	..	Baron Tsaidam	..	..	Baron Tsaidam is situated at the end of a descent from the Chang-Tang on the southern

ROUTE No. 63—*concl'd.*

edge of Tsaidam at about 10,000 feet elevation. It contains some 20 or 30 houses and is about one day's march from Jun. (See Route No. 64, stages 2 and 3.

2-7	Baron Tsaidam	The Tsaidam	The route crosses the Tsaidam and passes through a gorge in the Timurté (Tamirtin
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Ula) Range. The southern part is nearly everywhere a shaking bog covered with a crust of saline efflorescence and traversed by a few streams which are finally lost in the swamp in the centre of this broad plain. The northern portion consists of a sandy desert on which only a little brush grows.

8	The Tsaidam ..	Dulan-koa or Dulan-kit.	From the mouth of the gorge through the Tamirtin Ula, the road crosses a plain, 10 miles
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broad in which are two small brackish lakes, Dulan Nor and Debesu Nor. From the Dulan Nor the route follows up the Dulan Gol through a narrow valley to Dulan-koa. Each side of this valley the mountains rise precipitously some 1,200 feet; those facing south are covered with cedar and juniper trees. Dulankoa is a miserable village of adobe huts and one wooden house. About 200 Mongols and 30 Lamas reside there.

9	Dulan-koa ..	Valley of the Buhain Gol.	From Dulan-koa, the route crosses the mountains called Dagar-tenchen, which are a
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continuation of the south Koko Nor Range, by an ascent of about 1,000 feet and then descends into the valley of the Buha (Buhain) Gol.

10	Buhain Gol ..	Sining Ho Valley.	The road then leaves the Koko Nor at its north-eastern side and trending to the left for some
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miles over an undulating sandy steppe covered with thin stiff grass, enters the head of the Sining Ho Valley.

11	Sining Ho ..	Tankar or Donkyr.	The road follows the valley down, and leaving the country of the nomadic Tibetans and
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Mongolians, reaches the Chinese town of Tankar on the third day. Tankar is a large frontier trading post.

12	Tankar ..	Sining Fu ..	20		From Tonkar, the route is down along the Sining Ho for 20 miles.
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Route No. 64.

FROM CHAKANGNAMAGA (TSAGAN-NAMAGA) TO JYEKUNDO.

(ROUTE No. 1, STAGE 89.)

Authority and date.—Trigonometrical—Survey by A-K. in 1879—82.

Epitome.

The first portion of this route lies over the sandy plains of Mongolia, From Namohon (stage 6) to Niamcho (stage 14) the Chang Tang is crossed. and the last part of the route is through the inhabited valley of the Di Chu.

No houses exist on the route between Barong (stage 3) and Dhing, (stage 16), but after this latter place many houses and *gompas* are met with. The road between Barong (stage 3) and stage 11 is ill-defined, but after that the track is distinctly visible.

The general direction is south.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
	..	Tsagan-namaga	..	..	See Route No. 1, stage 89.
1	Tsagan-namaga.	Mochlangsi ..	22	22	The road runs east of south across a sandy plain. Grass and firewood obtainable, but no water.
2	Mochlangsi ..	Bol Gol or Bayan Gol.	28½	50½	The route crosses a low sandy hill at 1¾ miles and then for 12 miles crosses an undulating sandy plain, which then becomes level. At 19¾ miles the road crosses a salt water stream from the south-east and at 28¾ miles fords a branch of the Bayan Gol, 2 feet deep and 20 paces wide, which flows westwards to Harahusan (Route No. 1, stage 87). Camp on the left bank. Grass and fire wood abundant. 3 miles south is a house belonging to the Jhasa of Jun and some 50 tents known as Jun Tsaidam. The route from Sining Fu to Lhasa passes through it. See route No. 63.
3	Bayan Gol ..	Gakchar-namaga	16½	67½	The route at three miles fords the Gayan Gol, 3 feet deep and 50 paces wide, which flows westwards to Thingkali (see Route No. 1, stage 84). This river issues from the

ROUTE No. 64—*contd.*

Alang (Alak) Nur, and the two branches after uniting near Shiang Chaidam (Tsaidam) again divide into two streams some miles east of the Jhasa's residence. At 12 miles the Barong District is entered. The Jun District, which extends from the salt water stream in stage 2 to the Barong boundary, contains some 500 tents. Gakchar-namaga is a nomad Mongolian camp of 30 tents. Barong Chaidam (Tsaidam) containing 10 houses and some tents is $1\frac{1}{2}$ miles off.

4	Gakchar-namaga.	Hadho ..	13 $\frac{1}{2}$	80 $\frac{1}{2}$	There is cultivation at Hadho.
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5	Hadho ..	Camp No. 1..	15 $\frac{1}{2}$	95 $\frac{1}{2}$	The route enters a narrow valley and after $\frac{3}{4}$ mile crosses a stream flowing to the
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north and, after following up its left bank for $14\frac{1}{2}$ miles, re-crosses to camp. There are no habitations, but during the winter the Parong nomads bring their cattle here for pasture.

6	Camp No. 1 ..	Camp No. 2 ..	21 $\frac{1}{2}$	117	After a difficult ascent of $3\frac{1}{4}$ miles, the road crosses by the Namohon (Namokhun) Pass
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over the Angirtakshia range and descends for $5\frac{1}{2}$ miles to a stream flowing south-east. An open valley 8 miles wide and running east and west is now reached. Proceeding 3 miles across the valley, the route fords the Alang Nur breach of the Bayan Gol which is here $1\frac{1}{2}$ feet deep and 20 paces wide. The Alang Nur, 5 miles long by 4 miles broad, is 3 miles to the west and is fed by two streams from the south. The robbers of Banakhasum and Chiomogolok adopt the route along this valley in their plundering excursions westwards. At $15\frac{3}{4}$ miles the route crosses one of the streams which fall into the lake and follow it up for $5\frac{1}{2}$ miles to camp. Water and grass in abundance; fuel scarce.

7	Camp No. 2 ..	Camp No. 3 ..	14	131	At $4\frac{1}{2}$ miles an easy ascent leads to a pass and 5 miles further on another low pass is
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crossed. Then descending $3\frac{1}{4}$ miles along the left bank of a stream which then turns to a bearing of $237\frac{1}{2}$, the route proceeds $3\frac{1}{4}$ miles further to a camp where fuel, grass, and water are abundant, and the ground is level and good.

8	Camp No. 3 ..	Camp No. 4 ..	14	13 $\frac{1}{2}$	The route for $5\frac{1}{2}$ miles lies along an elevated table land and then descends for one and a
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half miles and crosses a stream flowing from the west. After ascending for the 3 miles the top of a spur is reached whence the route descends along a tributary of the Ma Chu for $3\frac{1}{2}$ miles and then fords that river a little below the confluence of the stream. 3 miles to the east, the Ma Chu falls into the Tso Kising Kuring (Tsaring Nur) and lower down becomes

ROUTE No. 64—*contd.*

the Hwang Ho. It is here 4 feet deep and 300 paces wide. $1\frac{1}{4}$ miles further on, camp on a low isolated hill $\frac{1}{2}$ mile east of a walled enclosure.

9	Camp 4	..	Camp 5	..	24 $\frac{1}{2}$	170	The road has a gentle upward slope for 3 miles and then descending crosses the Ma

Chu in $1\frac{3}{4}$ miles, after which it enters a plain called Karmathang, 15 miles long and 8 miles broad. Crossing this to a low pass at $14\frac{1}{4}$ miles, the route descends gradually and running along the base of the hills on the left reaches a pass at $17\frac{1}{4}$ miles; from here it follows a stream southwards for $1\frac{1}{2}$ miles and after another $1\frac{1}{2}$ miles crosses a small spur. The camp is 4 miles further on, on the left bank of a stream from the south-west. Fuel and grass in abundance.

10	Camp 5	..	Lamathologa..	14	184	A snow-storm caused A-K. to miss the direct road, but, following the left bank of the

stream for 13 miles, he reached a pass over the Lamathologa range (round like Lama's head). After a descent of a mile Lamathologa is reached halting place where grass, fuel, and water are abundant.

11	Lamathologa..	Camp 6	..	20 $\frac{1}{2}$	204 $\frac{1}{2}$	After following the right bank of a stream for $5\frac{1}{2}$ miles, the route crosses the Dugbulag stream

($1\frac{1}{2}$ feet deep, 15 paces wide) flowing eastwards. The Dugbulag stream is the northern boundary of the Niacho District. A-K. saw a large number of wild yaks grazing along this stream and was informed that some mounted robbers from Chiamogolok had recently gone up the Dugbulag Valley to the west with a view to plundering travellers on the Lhasa-Sining Fu road. At $17\frac{1}{2}$ miles the road crosses a small spur and proceeds $2\frac{3}{4}$ miles along the left bank of a stream to the northernmost winter camping-ground of the Niamcho nomads. The Mongolian guides who had accompanied A-K.'s party from Barong to this point, were here dismissed.

They were no longer required as the road could be easily traced. The road from Barong (stage 3) to this point is good and level except in the hilly portions where it is stony and rough.

12	Camp 6	..	Camp 7	..	16 $\frac{1}{2}$	220 $\frac{1}{2}$	The road follows the right bank of the stream for 6 miles and then crosses it a little below the

junction of another stream from the south which it follows up for 5 miles to a low pass where there are several springs of fresh water. The route then follows the stream flowing to the south which is joined by others from the west at $2\frac{3}{4}$ and $5\frac{1}{4}$ miles from the pass. At the latter was an encampment of 3 nomad tents. Grass and fuel abundant.

13	Camp 7	..	Camp 8	..	14 $\frac{1}{2}$	235	The road continues to follow the stream which is fed by several smaller streams. There

ROUTE No. 64—*contd.*

is a hot spring at $5\frac{1}{2}$ miles. The stream at this camp is $2\frac{1}{2}$ feet deep and 25 paces wide. Grass and fuel not easily procurable. The road is rough and stony.

14	Camp 8	..	Niamcho	..	9 $\frac{1}{2}$	244 $\frac{1}{2}$	Leaving the stream, the road crosses a low pass to the south at $2\frac{1}{2}$ miles. At 5 miles
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a snowy peak believed to be sacred and named Gartojhio was observed bearing $304\frac{1}{2}^{\circ}$ and distant 4 miles. Two miles to the west is Niamcho, a village of 100 tents and 50 houses. This district has a population represented by about 1,000 tents; and the fields in the vicinity of Niamcho are said to be cultivated to some extent. At $7\frac{1}{2}$ miles the road crosses a stream $1\frac{1}{2}$ feet deep and 15 paces wide and follows it up towards the east for $2\frac{1}{2}$ miles to camp. Grass and fuel abundant.

15	Niamcho	..	Camp 9	..	8 $\frac{1}{2}$	253 $\frac{1}{2}$	An uneven road to the foot of a pass where grass and fuel are scarce.
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16	Camp 9	..	Tindhu	..	14	267 $\frac{1}{2}$	A steep ascent of $1\frac{3}{4}$ miles leads to the pass (the boundary between the Niamcho and Darge
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districts), which was covered with 3 feet of snow in October and is followed by a difficult descent of $2\frac{3}{4}$ miles to the left bank of a stream which the road follows for $4\frac{3}{4}$ miles to Dingo containing 10 houses and some cultivation. A village of 8 houses is passed at $11\frac{1}{4}$ miles, and, at $13\frac{1}{4}$ miles, the stream unites with another (2 feet deep and 15 paces wide) from the east. The united stream after flowing towards the west, turns abruptly south and falls into the Di Chu. $\frac{3}{4}$ mile up the easterly stream is Tindhu, a village of 10 houses.

17	Tindhu	..	Thiso	..	13	280 $\frac{1}{2}$	The route lies up stream for $1\frac{3}{4}$ miles to Kanzo Gompa which contains a celebrated image of
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Jhio (Buddhist God) and is inhabited by 150 Dabas. Crossing to a village on the left bank and passing another one at 3 miles, the road at $5\frac{1}{4}$ miles turns southwards up another stream for $2\frac{3}{4}$ miles. A steep $\frac{1}{2}$ mile leads to a pass whence there is a steep descent for $1\frac{1}{2}$ miles. Thence the route is for 3 miles down a stream to Thiso (30 houses). A mile above Thiso a stream flows in from the east; 3 miles up it on its right bank is Chiota Gompa (300 "Dabas") having some 100 houses about it. Supplies are procurable at all these villages and cultivation exists in their vicinity. One crop of Ne and wheat is raised annually.

18	Thiso	..	Thombuda	..	13	293 $\frac{1}{2}$	Following down stream Khutho (20 houses), Thuden Gompa, Laindha (50 houses),
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and Chiorten Karpo are past at $\frac{3}{4}$, $1\frac{1}{2}$, 2 and $2\frac{1}{2}$ miles, respectively. The latter is a sacred shrine near the junction of the stream with the Di Chu which here

ROUTE No. 64—*concl'd.*

comes from a bearing of $332\frac{1}{2}^{\circ}$; the elevation is 11,440 feet. Opposite the Chiorten is Thandha (40 houses) on the right bank. The road follows down the left bank of the Di Chu to Rangma (15 houses) at 3 miles where A. K. crossed it to Dwindu (50 houses). The Di Chu is here 175 paces wide and was frozen in December. The road follows the villages of Dhokor (50 houses) on the left bank, Jindha (30 houses) on the right bank, and Bari (10 houses) on the left bank, at $6\frac{1}{4}$, 8 and $9\frac{1}{4}$ miles, respectively. Opposite Bari, the road turns south-west up the left bank of a tributary stream to Den la ($9\frac{3}{4}$ miles), Bhonchi Gumpa ($11\frac{1}{2}$ miles) and Thombuda, a village of 20 houses, one mile east of Rakna Gumpa. The road is stony and through valleys. All the villages have more or less cultivation about them.

19	Thombuda ..	Jyekundo ..	12	305 $\frac{1}{2}$	Continuing as before, the route crosses a stream from the south-east at $2\frac{1}{4}$ miles and at 6 miles reaches the top of a pass by a steep ascent whence it descends to a stream at $7\frac{1}{2}$ miles. A ridge is crossed at $8\frac{1}{2}$ miles the descent from which is steep for $1\frac{1}{2}$ miles. Kegu Gumpa (300 "Dabas") is passed at $11\frac{3}{4}$ miles.

Jyekundo (called Kegudo by A-K.) is an important trade centre on the main tea route from China (Ta-chien-lu) to Lhasa. It contains some 200 houses and 40 shops owned by Tibetans and Chinese. See Route No. 62.

Route No. 65.

FROM CHETANG TO KHAM-PA-PAR-TSE *via* THE TSANGPO RIVER.

Authority and date.—Trigonometrical Survey by A-K. in 1879—82, and Lama, U. G., in 1883.

Epitome.

The route is westward along the right bank of the Tsangpo, and passes through a well populated country containing many villages and monasteries.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
1	..	Chetang ..	..	..	See Route No. 50, stage 30.
1	Chetang ..	Dushi ..	22 $\frac{1}{2}$	22 $\frac{1}{2}$	The road follows the right bank of the Tsangpo, crossing a tributary stream at 1 mile and passing through Chyasa Lhakhang ($2\frac{1}{4}$ miles), and Gerpa Duga C-343 I.B.

ROUTE No. 65—*concl'd.*

(Gaba Dukha) Ferry ($3\frac{3}{4}$ miles) on the right bank and opposite Dhonda (Tanda), $5\frac{3}{4}$ miles, and Samye ($20\frac{1}{2}$ miles) on the left bank. Dushio is apparently Tongsho of the Lama, U. G., where there is a ferry called Tsong-ka. The river is more than a mile broad here. A few miles south is Mindoling Monastery.

2	Dushio	..	Chitishio (Kadesho).	19 $\frac{1}{2}$	42 $\frac{1}{2}$	The route passes Chinduchoka Gampa at $1\frac{1}{4}$ miles, one mile north of Jera Gampa at $4\frac{3}{4}$
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miles, and Tathang and Champaling Gampa at about 8 miles. U. G. describes the latter as a trade mart, but it is difficult to account for as the place lies away from any trade route. Mandzu Ferry and Lhatse are passed at 10 and 16 miles, respectively. Chitishio is well known on account of its woollen cloth manufacture; it comprises 1,000 houses, a fort and bazar. See Route No. 65.

3	Chitishio	..	Ramedh	8 $\frac{3}{4}$	51	The road passes the ferry at Dorjethag, Taishon and Chishio villages at 2, $6\frac{3}{4}$ and $8\frac{1}{4}$ miles, respectively. At Dorjethag the river is 800 yards wide and very deep. From here a route runs to Lhasa (see Route No. 66). Round Ramedh Gampa there are 100 houses.
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4	Ramedh	..	Gong-kha	13	64	Passing Manga Lhakhang at $2\frac{1}{2}$ miles and Gongkha Chiorten and 200 houses at $11\frac{1}{2}$ miles, the road reaches Gongkha Jong and 600 houses at 13 miles.
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5	Gong-kha	..	Khampa-partse	12	76	The road continues along the river past Lhasang (2 miles) and Kina ($3\frac{3}{4}$ miles) and over a spur at $5\frac{1}{2}$ miles to Jiangthang at $7\frac{1}{2}$ miles. At $11\frac{1}{2}$ miles the road leaving the river, turns south to Khampa partse (see Route No. 1, stage 30).
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Route No. 66.

FROM CHITISHIO (KADESHO) JONG TO LHASA.

Authority and date.—Trigonometrical Survey by Lama, U. G., in 1883.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Intermediate.	Total.	
..	..	Chitishio	..	..	See Route No. 65, stage 2.

ROUTE No. 66—*concl'd.*

1	Chitishlo ..	Phurin ..	10	10	Follow up the right bank of the Tsangpo for 2 miles and then cross by a ferry to Dorjethag (see Route No. 65, stage 3), whence a good road, easy of ascent, leads north to Phurin. The river is 800 yards wide and very deep.
2	Phurin ..	Kyepalhiua ..	7	17	

3	Kyepalhiua ..	Lhasa ..	13½	30½	The road continuing to ascend passes over a rough ground impeded with thorn bushes. The route at 2½ miles crosses the Tungo La (16,330 feet). At the summit is a flat, open, grass plain. The ascent is difficult but the descent into the plain at the summit is easy. The road crosses this plain and ascends up an easy ascent to a second pass at 6½ miles, whence a difficult and steep descent for 4,600 paces, followed by a more gradual fall leads to Thiba (9½ miles). Though difficult, the track is passable by yaks and ponies. From Thiba, the road passes Tse-chhog-ling to the Kyi Chu, 500 paces broad, which is crossed in boats to Lhasa. See Route No. 1, stage 36.

A stream is constantly crossed and re-crossed by bridges.

The road continuing to ascend passes over a rough ground impeded with thorn bushes. The route at 2½ miles crosses the Tungo La (16,330 feet). At the summit is a flat, open, grass plain. The ascent is difficult but the descent into the plain at the summit is easy. The road crosses this plain and ascends up an easy ascent to a second pass at 6½ miles, whence a difficult and steep descent for 4,600 paces, followed by a more gradual fall leads to Thiba (9½ miles). Though difficult, the track is passable by yaks and ponies. From Thiba, the road passes Tse-chhog-ling to the Kyi Chu, 500 paces broad, which is crossed in boats to Lhasa. See Route No. 1, stage 36.

Route No. 67.

FROM LHASA TO GALDAN *via* SARA.

Authority and date.—Trigonometrical Survey of 1871—73.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Lhasa ..	Sara ..	2½	2½	Road from last station level. Sara is a large monastery at the foot of the Tatiphu hills. The circumference of this mountain is about a mile. Numerous temples of all sizes are in the enclosure. Thousands of pilgrims annually resort to this shrine; 5,500 priests live here.
2	Sara ..	Dakyarpa ..	13½	16½	Road from last station at first level along foot of the Tatiphu hill; Chaksam village on

ROUTE No. 67—*concl'd.*

the right bank of the Kyi Chu is reached at $5\frac{1}{2}$ miles, and the road runs along the right bank. Garba village is passed at $8\frac{1}{4}$ miles and Dasi at 10 miles. The road now begins to ascend at first slightly, but the last three miles to the monastery are steep. Dakyarpo is a monastery half way up a hill. There are many temples here, although the number of priests is not more than a dozen.

3	Dakyarpo	..	Galdan	..	14 $\frac{1}{2}$	31	Road from last station level and along right bank of river Kyi Chu. Nangra village passed
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at 2 miles; at $3\frac{3}{4}$ miles the road passes within $\frac{1}{4}$ mile of a fort called Dhejen Jong (See Route No. 2, stage 67) situated to the south-east. Bumtat village is passed at $6\frac{1}{4}$ miles and Khire village at $10\frac{1}{4}$ miles. At 11 miles a small stream coming from the west is crossed and at $11\frac{1}{2}$ miles the Ky Chu river is crossed. The ascent to the monastery begins within $1\frac{3}{4}$ miles of it. Galdan is a monastery situated on a low hill; the circumference of this monastery is about $\frac{3}{4}$ mile. There are numerous well-built temples and about 3,300 priests.

Route No. 68.

FROM LHASA TO TSE-SHING *via* THE TELUNG VALLEY.

Authority and date.—LIEUTENANT N. V. L. RYBOLT, 28th Punjab Infantry, dated the 6th September 1904.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Lhasa	.. Pung-dong ..	14	14	For Lhasa to Shin-dong- ga see Ro te No. 1, stage 36. Shin-dong-ga is about 4 miles along the Lhasa-Gyantse road from Lhasa.

From Shin-dong-ga the road goes for $\frac{1}{2}$ mile along Gyangste Road then branches off north-west up the Telung Valley under high broken spur, behind which in broad recess (at 6 miles) and about 1,500 yards from road Kadung Gompa is situated. The track is broad and good, though sandy and shingly in places. The valley is about 8 miles wide and richly cultivated. Groves of trees surround the many farms and villages scattered about. Mingu-tongsong village

ROUTE No. 68—*concl'd.*

is passed at 7 miles and Jungmu $\frac{1}{2}$ a mile further on. At $8\frac{3}{4}$ miles the Yaba-tin-chu comes in from right down a very broad and stony re-entrant. It is a brook of no importance. The track then skirts the foot of the hills which are very rugged and quite bare. At $9\frac{1}{4}$ Yamdu village is reached. Here the valley narrows to about $1\frac{1}{2}$ miles wide. The river which keeps nearer the other side runs in many channels down a broad bed of shingle. Between Yamdu and Pungdong several small villages are passed mostly built among the rocks to the right. Chief among these are Lung-sung ($10\frac{3}{4}$ miles), Ka-tak (11 miles) and Tosi (13 miles). Pungdong consists of a large stone house (belonging to Depung Gompa) surrounded by several meaner buildings. Adjoining it to the west is a fair-sized walled grove. Suitable camping sites are to be found all along the valley and supplies of grain, fodder and sampa should be forthcoming in large quantities from the gompas and villages.

2	Pung-dong ..	Tse-shing ..	13 $\frac{1}{4}$	27 $\frac{1}{4}$	After leaving Pungdong, road continues north- west running for first mile between foot
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of spur and river. The track is narrow and bad, winding among boulders. Road then proceeds across fairly level and broad fans of detritus brought down from succession of rugged re-entrants to right, at mouths of which houses stand amid small groves. The valley averages about 1,200 yards broad, cultivation lying mostly to south side where at $2\frac{3}{4}$ miles stands village of Shan-din-shiga at foot of side *nala*. At 4 miles the track passes Nan-garchi, a two storied stone house belonging to Depung Monastery. Round about is a good deal of cultivation and a few small groves of trees. Nangzi village standing among large trees is passed to the left at 5 miles. At 6 miles several small houses are reached. Just beyond the road is crossed by small streams in two or three places. The valley now becomes more stony, the cultivation less and of poorer quality. At 7 miles are several ruined chaitens. Above, against a high cliff to the right is a small gompa called Pamin-tse. On opposite side of valley some distance up a recess is the Papo Gompa. Beneath it, sheltering Pa-ra village, an isolated low ridge crowned with walls, runs out into the valley. At 8 miles the valley bifurcates at a place called Kai-po. The main valley trends more to the north. The other valley called the Chuchu comes in from the west. The stream is small and clear and the valley is well cultivated. Just beyond point a rough and very ricketty cantilever bridge crosses the main stream, here about 30 yards wide and very swift, the "high road" however continues along the foot of the hills to the right crossing the mouth of a broad-side *nala* at 10 miles where are situated the villages of Kala. Beneath these is a fair amount of cultivation and some water meadows. At $10\frac{3}{4}$ miles the path runs round under a spur. Here the valley is about 800 yards wide, mostly river-bed. After passing this point it widens considerably and turns more northward. To the south side a good deal of terraced cultivation runs up the re-entrants. At $13\frac{1}{2}$ miles large valleys run down from east and west, respectively. The village of Tse-shing standing at the foot of the former and that of Tsome at foot of latter. A strikingly coloured spur comes down near Tseshing. Large camping sites are available here.

Route No. 69.

FROM GOBSHI TO CHUSHUL *viâ* WOGIYA LA, NYUNGRUNG AND
BEUDE FERRY.

Authority and date.—MAJOR G. B. ROW, October 1904; LIEUTENANT N. V. L. RYBOLT, October 1904.

Epitome.

Supplies such as grain, fodder and fuel sufficient for a small force equivalent to one battalion with its transport could be obtained at Gobshi (see Route No. 1, stage 21) and Chazung and also in the villages of Naru. Sheep and sampa flour are also obtainable in small quantities. After leaving the Naru plain nothing is obtainable till Ralung is reached and from that place to the Rong Valley is uninhabited. Supplies at Tse Sum are very limited, but sufficient could be obtained for a force of above strength in the villages between there and Yasi. Water is good from streams along the whole route and there is excellent grazing for yak transport.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
..	....	Gobshi	..	..	See Route No. 1, stage 21.
1	Gobshi	Takpa	10½	10½	There are well-used paths on both banks of the Naru Chu (a swift stream fordable in the dry season), but, as the only bridge after that at Gobshi is some miles above Takpa on the main Kangmar route, the path on the right bank should be taken. The valley is narrow, averaging 100 to 150 yards broad except at mile 3 where the river makes a sharp bend. Here there is a village, Chazung (5 houses), and cultivation. The hills on either side rise abruptly to 1500 or 1,800 feet above the valley; at mile 5 the small village of Talong and at mile 7 the monastery of Shinggon are passed. The valley begins to open out here and at Takpa village the north end of Naru plain is reached.
2	Takpa	Wogiya-La	12	22½	Path follows the hills on north of plain for 3 miles where it enters the valley at north-east corner of plain passing about 6 houses or clusters of houses all called

ROUTE No. 69—*contd.*

Naru. The two largest of these are at the entrance of valley and one mile up it. The valley is fairly open as far as the hamlet of Lungden (miles $4\frac{1}{2}$) near which the direct road from Kangmar joins. Here a small stream from south is crossed up which there is a path leading to village Habra. Just after passing Lungden the valley begins to narrow and at mile 6 at a ruined village called Handa it becomes a defile of nearly $1\frac{1}{2}$ miles long, in places quite narrow. The hills on either side are shaley and bare, about 1,000 to 1,500 feet high, but are fairly easy to work over. On leaving the defile the valley opens out again and the hills on either side are open and grass covered. The path from Lungden gradually ascends until the Wogiya La (16,000 feet) is reached. Suitable camping-grounds can be made anywhere between mile 9 and mile 11.

Note.—There is no pass called in the maps Woling Sho La.

3	Wogiya-La ..	Kar-La Gorge.	11 $\frac{1}{2}$	33 $\frac{1}{2}$	For $1\frac{1}{2}$ miles the path follows a small valley then ascends on to a rolling plateau (16,000
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feet) which continues for 3 miles when there is a steep descent into valley of Ralung Chu, miles 6 down which is the path to Ralung situated $1\frac{1}{2}$ miles to the west after crossing the stream, which here divides into three branches and is fordable, the path leads over a small spur and descends into the valley of a small stream from east. After crossing which it ascends on to the Gom Tang, an undulating plain (15,000 feet) of about 13 miles long. As far as the Karo La gorge the path is well-defined. The main road to Lhasa turns off sharp through the gorge (see Route No. 1, stage 24).

4	Karo La Gorge.	Tse Sum ..	16 $\frac{1}{2}$	50 $\frac{1}{2}$	This route is evidently little used; the track is ill defined and in many places non-existent,
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but it roughly follows the stream and is practicable throughout for mules. The rise is gradual to the Nyungrung La (16,750 feet), mile $8\frac{1}{2}$, situated on a spur running west from the snow peak, Nichi Kang Sang. From the pass the track after descending to 15,550 feet and crossing a glacier-fed stream ascends to the Kyemashunshi La (16,750 feet) which is clearly visible 5 miles to the north. The only suitable places for camping are about $1\frac{1}{2}$ miles south of Nyungrung La or 2 miles to the north of it at a grazing-ground called Tagra. Although consisting only of a cattle track, the route is unmistakeable. From the Kyemashunshi La there is no defined path; it follows more or less parallel to a prominent ridge running north from the Karo La snows, descending by very easy gradient to the village of Tse Sum (14,500 feet), 5 houses, on the Rong Chu. The main road from Shigatse to Lhasa is joined here (see Route No. 70). Camping-ground for one battalion in fields near village.

5	Tse Sum ..	Yasi ..	12 $\frac{1}{2}$	62 $\frac{1}{2}$	The path, gradually ascending, follows the Rong Chu, it is a made one and well used.
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Close to Tse Sum it enters a narrow gorge which continues for about 3 miles, in parts very contracted with precipitous sides. The hills on each side are

ROUTE No. 69—*contd.*

difficult being about 2,000 to 3,000 feet high and on the gorge side very steep. To flank the defile, if held, the flanking parties would have to commence the ascent at Tse Sum. At the north entrance to the gorge the valley opens and the village of Tse Tang (6 houses) is passed. At mile 6 is the village Lung Sung (3 houses) and mile 7, village Yeya Tang. At mile 8 a small lake is passed and the path ascends on to a stony plain. From here the valley becomes broader till at village Yasi it is about one mile broad. Two other small lakes are passed before the Yamdok Tso, one mile beyond Yasi is reached. The road from Nang-kar-tse to Pele Jong and Lhasa follows the margin of the great lake. See Route No. 1, stages 27 to 36.

6	Yasi	..	Pede Jong	..	5½	68½	See Route No. 1, stage 28.
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7	Pede Jong	..	Beu-de Ferry		13½	81½	Road leaves Pede-Demalung road at Chhu Le (4 miles) and after passing through
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some cultivation ascends bare hillside by succession of small stony zigzags to spur at 6 miles (about 1,200 feet above level of Yamdok Tso). Thence to the Dau or Yab-tse Pass (8 miles) the ascent is very easy, the track running along just under the summit of the ridge which separates the Yamdok and Tsangpo valleys. The pass is just over 2,000 feet above the lake and some 4,600 feet above the Tsangpo. Across it a strong turf and stone wall has been lately built flanked by a *sangar* on a knoll to the west and by a continuous wall to the east which runs right down to a spur to the lake itself and must be quite 2 miles in length. An extensive view is obtained from the pass. The descent to the river is fairly easy and nowhere very steep. Seven long zigzags lead down to the ravine bed. Thence the track becomes straighter and a little less loose. At 11 miles scanty cultivation is reached and some ruined towers. At 12 miles near the mouth of the ravine cultivation increases and a small village is passed, surrounded by walnut and other trees. The road then trends eastwards across fields to Beu-de village (13 miles). On a spur above this stands the ruined Tendeu Jong. From this village to the river (13½ miles) the path crosses shingle and sand. At this time of year the river here is about 120 yards broad and not very swift. The north bank consists of a shingle cliff about 30 feet high. A series of strong loopholed *sangars* covers the crossing from its summit.

8	Beu-de Ferry		Chushul	..	11	92½	Road leaves ferry in a north-easterly direction across flat cultivated country towards
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foot of bare hills passing at first mile within a mile of Kin-ze Gompa (situated on a low spur above houses standing in trees to north). Thence plain becomes more sandy. The road on approaching hills trends eastward; it is broad but loose. At 2½ miles the end of a rocky spur is passed. Another sandy fan or plain is then crossed. The river here is some 1½ miles distant. Two villages are situated near its bank amid some cultivation. To the

ROUTE No. 69—*concl'd.*

north of the road along the foot of the hills are a few good-looking houses with small groves and a few fields near them. River and hills now turn eastwards and at 7 miles a rocky spur runs down to the water. This spur forms the western defence of the Chang-gu-Zan-ze Gompa and up it a strong loopholed wall runs. The precincts of the gompa are entered by two gates. The inner one is about 30 yards beyond the wall and consists of a passage under a large Chaiten. Thence the road proceeds with a high wall on the left hand (above and behind which are the chief monastery buildings) and a dense willow grove on the right. At $7\frac{1}{2}$ miles another spur comes down to the water thus shutting in the gompa from the east. Here the hills recede abruptly northwards and the road enters a richly cultivated valley-mouth. Among the fields stand numerous country houses and farms surrounded by large poplars, walnut and other trees. Supplies of all sorts and some cattle and ponies should be obtainable here. about. A strong stone bridge takes the track across a small torrent at $8\frac{1}{4}$ miles, and at $8\frac{1}{2}$ miles the Chaksam north bank camp is reached. See Route No. 1, stage 32.

Route No. 70.

FROM SHIGATSE TO YASI *viâ* THE RIVER ROAD.

Authority and date.—Trigonometrical Survey of 1875.

Epitome.

This is the main road between Shigatse and Lhasa, and is generally used unless people wish to go to Gyantse. It is a good road and reduces the distance by 41 miles.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
..	..	Shigatse	...	..	See Route No. 2, stage 89.
1	Shigatse	Nimo	25	25	Three and-a-half miles from Shigatse is the enclosed garden of Kumkyaling, 600 paces

by 300, with a small lamasery situated in its midst; near the garden is a bridge over the Paina Chu river, which is 80 paces in length, and constructed of large wooden beams resting on four large piers built of uncemented stone; the bridge is 4 paces wide, and has no hand rails. The

ROUTE No. 70—*concl'd.*

banks of the river are moderately steep, the current gentle, and the water alive with large fish; during floods the river is said to rise 12 feet above the ordinary level. Cross to right bank of Paina Chu and follow stream for $2\frac{1}{2}$ miles to its junction with the great river of Tibet, called the Dugshum, above the junction, and the Ekyap Tsangpo below. It flows in some places in several channels, and in others spreads out into a great expanse of water with scarcely any perceptible current. On the left or north bank many villages are seen, and a plain, varying from 3 to 5 miles in breadth, stretches from the river to a range of rounded hills, which rise to a height of about 1,000 feet above the surrounding country. The river is said never to freeze entirely. Floods occasionally occur.

The houses near the river have the lower 3 feet of their walls built of stone, while the upper portion is of unburnt brick; they are low with sloping roofs covered with earth. Some of the houses cover a large area, and contain many little rooms.

2	Nimo	..	Jagsa	..	25	50	Road along right bank of river. There is a regularly organized goods and passenger
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traffic by boat down stream from Shigatse to Jagsa, divided into two stages at Nimol. The boats are oblong in shape, flat-bottomed and formed of leather stretched over a wooden framework. A range of snow-clad hills closes in on the right bank of the Tsangpo, about 3 miles to the east of Jagsa, and there is said to be no road along this bank, the river here entering the hills and falling over many rapids. There is no boat traffic between Jagsa and the iron chain bridge over the river at Chaksamchori.

3	Jagsa	..	Chuchen	..	18	68	From Jagsa the road turns south-east and enters the district of Rung Chung; 5 miles
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from Jagsa is the village of Jamchen and a monastery of 1,500 monks. The plain about Jamchen is studded with small villages. Beyond Jamchen is the monastery of Humidolma containing 900 monks; from here the road runs through a fertile valley containing several villages and at 18 miles is the village of Chuchen built on a mound, from the base of which issues a small stream of hot water. Temperature of water 152° F.

4	Chuchen	..	Yasi	..	26	94	From Chuchen the road passes several villages, two small monasteries, a lake, 400 yards \times 200,
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at 13 $\frac{1}{2}$ miles Tse Sum, see Route No. 69, stage 4, and at 26 miles joins the road from Gyangtse to Lhasa at the village of Yasi on the margin of the Yamdok Tso (See Route No. 1, stage 27). The range of sand-covered hills over-looking the village of Jagsa on the east continues parallel to the road to the Yamdok Tso, diminishing in height as it gets further east. To the south of the road lie plains bounded by low hills, which in places are close to the road and in places 4 or 5 miles distant. Between Shigatse and Yasi there is considerable traffic.

Route No. 71.

FROM SHIGATSE TO JADAR GOMPA, NAMCHO LARE OR TEN—GRJI
NUR) *viâ* KALAMBU PASS.

Authority and date.—COLONEL MONTGOMER R. E. Reports of
Trigonometrical Survey, 1872.

Epitome.

Note.—Each of the below mentioned stages is a day's journey.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate	Total.	
	..	Shigatse	..	..	See Route No. 2, stage 89.
1	Shigatse	Naisang	..	..	Naisang is a village at the confluence of the Penang Chu and Tsangps rivers.
2	Naisang	Peting	..	..	Peting is a village of 30 houses on the left bank of the Tsangpo river.
3	Chu Peting	Chua	..	..	Chua is a village.
4	Chua	Dongdotlo	..	..	Dongdotlo is a village on the right bank of the Shang Chu, a northern tributary of the Tsangpo. An official who presides over the district lives here. There are numerous surrounding villages.
5	Dongdotlo	Chom	..	..	Road along the right bank of the Shang Chu stream. Chom is a village of 50 houses, with a Buddhist Nunnery on its west, containing 100 women.
6	Chom	Namling	..	..	Namling is a town on the right bank of the Shang Chu. Here there is a monastery with about 500 lamas on a high hill. Namling is a place of some importance

ROUTE No. 71—*contd.*

boasting of an iron bridge over the river, and commanded by a strongly situated fort which is the residence of the Jongpon or Governor with about 500 Tibetan soldiers. The town itself has about 200 houses surrounded by gardens, with a small bazar in the centre.

7	Namling	..	Kholam
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mentioned bridge. Kholam has about 50 houses. The land about is very productive.

8	Kholam	..	Gonkiang
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nastery on rising ground. A lama of high rank lives here.

9	Gonkiang	..	Rabdan Chuling.
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bukher situated on the right bank near the crossing.

10	Rabdan Chuling.	Gunje
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to be common between this place and the Namcho Lake.

11	Gunje	..	Naikor
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tivation. Beyond this there is some more cultivation. The inhabitants graze sheep, goats and yaks.

12	Naikor	..	Chutang Chaka.
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this place; 8 baths supplied by these springs.

3	Chutang Chaka.	Chapting
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about. Dogpa is the name the graziers are known by.

14	Chapting	..	Peting Chuja
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Near Peting Chuja on the right bank of the Lahu Chu there is a large stony place about

ROUTE No. 71—*contd.*

120 paces in length, from which about a dozen columns of hot water issue. These rise to a height of 40 or 50 feet, and produce so much steam that the sky is darkened by it. The noise is very great. Similar jets of water were noticed issuing from the middle of the river. The Jawar Monastery lies about three miles to the east of these springs.

15	Peting Chuja ..	Sulung Sumdo.	..	..	Road still along the left bank of the Shang Chu. Sulung Sumdo is a camping-ground.
16	Sulung Sumdo..	Sulung ..	..	..	Sulung is an encampment, 50 Dogpa tents. No regular encampments beyond this place, the only people about being thieves on the look out for plunder.
17	Sulung ..	Naisum Chuja	..	..	Road still along left bank. Naisum Chuja is said to be a great place of worship or pilgrimage.

Chuja or Chusa means source of hot water springs. The name is given to the place from the great number of hot springs which are here on both sides of the Lahu Chu.

18	Naisum Chuja	Dung Chaka	Height 15,700 feet above the sea. About 10 miles east there is a lofty snowy mountain peak called Jhomo Gangar. Road still along river.
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19	Dung Chaka ..	Foot of Kalam-bu La.	Height of pass 17,200 feet above sea.
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20	Foot of Kalam-bu La.	Dung NoguChaka.	Road, after crossing the pass along the banks. Several hot springs about. Cross the
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Kalambu La. The crossing is difficult in winter owing to the snow, which makes the descent on the opposite side dangerous. Road after crossing the pass along the banks of the Dunge Chu is good.

21	Dung Nogu Chaka.	Kiang La	Road along left bank of the Dunge Chu. Kiang La is a camp.
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22	Kiang La ..	Dokmar	Road as above. Dokmar is a camp (height 16,250 feet). The Dogpas generally keep
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their sheep, goats, etc., here during the summer.

ROUTE No. 71—*contd.*

23	Dokmar	..	Ghaika	Road at first along left bank of the Dungche Chu, and then passes Nak Cho Lake (fresh water); a small stream running into this lake is crossed. Ghaika is a camp. There is a camp to the east at a place called Dungche. A road is said to go from here through Dungche by the Ninginthang La to Jang Hiangpa Monastery, thence by the Tulung Chubu Monastery to Lhasa. See Route No. 68.
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24	Ghaika	..	Chakri	One mile north of Ghaika the road crosses the Ghaika Chu, a large river which, coming from the west, flows into the Namcho Lake, about 12 miles east of the road. The river is wide and in winter is frozen over. In the summer it is said to rise very much. Chakri is a ruined village, surrounded by a 10-foot wall enclosing a space about 200 paces square. Several houses of brick in ruins. Place is said to have been once the residence of a man of rank.
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25	Chakri	..	Simjam	Simjam is a Dogpa campment of about 70 tents. This place is said to be much infested by robbers.
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26	Simlam	..	Tara	Cross the Simjam Chu flowing into the lake <i>en route</i> . Tara is on the shores of the Namcho Lake.
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27	Tara	..	Dorkia Jong.	Lugu	Dorkia Lugu Jong is a monastery situated in a small hill overlooking the lake. The lake is a magnificent sheet of water near Dorkia. An island, one mile long and $\frac{1}{2}$ mile in breadth, and having a hill 400 feet high in the centre, crowned by a temple, stands opposite. The Tengri Nur or Namcho Lake stands above 15,200 feet above the sea. It is about 50 miles in length, by from 16 to 25 miles in breadth. It receives the waters of two considerable rivers and several minor streams, but has no exit. The water is decidedly bitter, and freezes readily in winter. The Buleho lake lies to the north.
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28	Dorkia Jong.	Lugu	Ringa Do	Road along edge of lake. After reaching the north-west corner of lake, the same course is followed as in Route No. 81, stage 84. Ringa Do is on the margin of the lake. Here there is another island called Kuhl-ne-dobo about $1\frac{1}{2}$ miles in length by one mile in breadth.
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ROUTE No. 71—*concl'd.*

29	Ringa Do	..	Jadar Gampa	Road along edge of lake. Jadar is a monastery on banks of lake. See Route No. 81, stage 85.
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Route No. 72.

FROM LHATSE JONG TO TRADOM *via* THE BRAHMAPUTRA, SAKA JONG, AND RELA JONG.

Authority and date.—CAPTAIN C. G. RAWLING, 1st Somersetshire Light Infantry, dated 1904.

Epitome.

This route follows the Brahmaputra to Saka Jong, then branches off to Rela Gampa and so to Tradom.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
..	..	Lhatse Jong ..	..	..	See Route No. 2, stage 95.
1	Lhatse Jong ..	Cha-Gar, 13,200'	10½	10½	From Lhatse the path follows the right bank of the Tsang Po, and owing to the great bend made by the latter, does not turn to the west for about 4 miles. It then leaves the river and crosses a stony and, at places, sandy plain to Chagar (Route No. 2, stage 7).
At the 8th mile the Chinese post-house of To is reached, see Route No. 23. Some few houses and a little cultivation are passed on the way between Lhatse Jong and To.					
2	Cha-Gar ..	Tashu, 13,500'	11½	22	From Cha-gar the tracks dwindle to a single footpath which winds in and out of <i>na'as</i> , round spurs, and along the right bank of the Tsang Po.

Round the first spur the path has been cut out of the solid rock, and is only two feet wide. Pack animals must, therefore, have their loads removed at this point. As, however, the rock is of a slaty formation, the path could easily be widened.

ROUTE No. 72—*contd.*

Three villages of four houses each, together with a few trees and a little cultivation, are passed on this march.

At 8½ miles a large and fertile plain is entered through which the Brahmaputra flows in several channels. The average width of this plain is 2 miles, and its length 10 miles: but though the soil appears to be rich it contains only some half dozen small villages with only the ground in their immediate vicinity cultivated.

In the valley, before the plain is reached, are many flocks of sheep and goats as well as donkeys, cows and yaks.

7	Je	Ku-da, 15,700'	16½	85	The path continues along the plain, for another 4 miles to the village of Chun-
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gar. It then again enters the narrow valley of the Tsangpo, and after 3 miles debouches on to more open ground.

Opposite this point and on the northern bank of the river rises a precipitous rock, the summit of which is crowned with the ruins of a once great monastery. A village called Chu-ken-da, consisting of about a dozen houses, nestles at its foot.

About one mile further on, up the left bank of the river, stands the monastery and village of Ru-je. Here there is a double span chain bridge, each span being 120 feet in length.

At 8½ miles the road leaves the main valley and turns up a *nala* to the south, called Lujen Lung-ba containing many small villages, gomp s, and numerous ruins of ancient hamlets and forts, the latter of which the natives state were captured by the Gurkhas during the war between Tibet and Nepal in 1846. Three miles up the valley on the right are hot springs rising in all directions. These springs cause the valley to be perpetually wet and boggy, and as a result grass grows luxuriantly. Here browse large flocks of sheep and goats, besides many ponies, donkeys, yak, and cows.

At the head of the valley, where cultivation ceases is the village of Takso. From here the ascent becomes stiff and at times rough, until at 16½ miles Kuda is reached.

Opposite Takso, to the east lies another *nala*, the road up which is said to lead to Shiga, distant four marches for ponies or eight marches for yak. On this branch road there is only one village called Ngonga. The road is reported to be good.

From Ru-je the road along the Brahmaputra is impassable for ponies, but it can be used by men on foot.

This district is under the orders of the Sarkya monastery.

8	Ku-da ..	Ka-ju, 14,800'	14½	99½	Three miles from the huts at Ku-da is the summit of a pass, 17,900 feet, the ascent
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being steep and rough. The descent on the south-western side is gentle and the going good.

ROUTE No. 72—*contd.*

At 9½ miles a narrow gorge is entered which the route follows for 5 miles. The bed of this gorge has never a width of over 100 feet and its sides are precipitous. The going is rough, over loose limestone and slate. The ravine would prove a difficult point to force even if held weakly and by ill-armed men, for it is practically impossible to climb the cliffs at the sides.

Six hundred yards from where the gorge debouches on to a great plain lies the village of Ka-ju.

Two branch roads run from Ka-ju : one to Jonka *Jong* (see Route No. 7) and the other to Dingri. This latter is said to be three marches distant, the intermediate stages being Dunga and Duckcha, and each march about 15 miles. The going on this branch route is said to be level and good.

The plain lying to the south and west is watered by many streams, tributaries of the Ganges, and there the grazing is excellent. Yak, sheep and goats may be seen grazing in great numbers.

9	Ka-ju	..	Nag-du, 15,800 feet.	19	118½	For the first 4 miles the direction of march is north-west across the Sutso Tang,, the name
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give to the whole plain. There is no path, but the going is good everywhere.

A scrub covered *vala* is then entered and a spur crossed which entails a steady uphill pull for 6 miles before the summit of the Sheru La, 17,600 feet, is reached. Both the ascent and descent have easy gradients, but the going is bad and becomes worse the nearer the camping-ground of Nag-du is approached.

10	Nag-du	..	Le-lung, 14,400 feet.	16	134½	Leaving Nag-du the path again becomes visible leading down the left hand side of the valley
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until the Brahmaputra can be seen. At the mouth of this valley and on the level ground lies the whitewashed village of Sheru. This village is not approached for the road crosses a great spur some distance from it and then gradually descends.

Two miles from Sheru and on the left bank of the Brahmaputra is the small village of Guinju, where a ferry is reported to exist. No boat was seen, but the natives report the existence of one opposite the village sufficiently large to carry ten unladen ponies each trip.

11	Le-lung	..	Yen-ju-tan-kar, 14,500 feet.	10	145½	One mile above Le-lung, the Brahmaputra is crossed by a ferry. The boat is kept on the
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left bank of the river, and is said to be large enough to carry ten unladen ponies, but is seldom used. No ferrymen live near by.

For the remainder of the journey the path follows the left bank of the river ; going good, the paths being firm and level.

At 7 miles the monastery and village of Tang is seen to the south of the river. From here a path is said to lead to Jonka *Jong*, distant three marches, a pass having to be crossed during the second.

ROUTE No. 72—*contd.*

At $8\frac{1}{2}$ miles the road passes through the village of Sarum.

At the 10th mile the *gompa* of Nup-gum is passed on the west of the Yen Ju *nal*. One mile further up this side valley lies Yen-iu-ton-kar, and a little further up still a good road is said to run to Ra-ga-trak-sam, distant one long march.

12	Yen-fu-tan-kar	Phug-sum, 14,600 feet.	15	160 $\frac{1}{2}$	The route continues due west up an open valley, until at $9\frac{1}{2}$ miles the Lalung Toma pass is crossed. This pass lies 9,000 feet above the plain; ascent and descent easy.
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The going is good until at $12\frac{1}{2}$ miles the path enters a narrow ravine and crosses and recrosses the bed of a stream; along this stretch it is very bad.

At the mouth of this gorge is the camping-ground of Phug-sum.

A low growing shrub, the stems and roots of which are good fuel, grows on at the hillsides.

13	Phug-sum ..	Gya-tso 14,600 feet.	21 $\frac{1}{2}$	182	The path keeps to the left bank of the Brahmaputra. The going varies being at times firm and level and others rocky and rough. At $13\frac{1}{2}$ miles there is a ferry, with a skin boat.
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At 13 miles the road enters a sandy valley, and at 16 miles crosses the Kan-den La, the ascent and descent of which are easy, but the going is through loose and deep sand.

An extensive plain full of sanddunes, and cut up by branches of the Brahmaputra is now traversed in a north-westerly direction, until the small fresh-water lake of Gya-tso is reached, on the banks of which are camping-grounds.

14	Gya-tso ..	Saka Jong, 15,150 feet.	18	200	See route No. 2, stage 109.
15	Saka Jong ..	Puk-ta ..	19	219	Leaving Sa-ka Jong, the path runs down the valley in a south-westerly direction, crossing

at the 6th mile the easy pass of Lamlung La and then descending into the Charta Tsang Po valley, a plain, 3 miles in width. At 12 miles the Charta Tsang-po is crossed: it is easily fordable throughout the year at this point. The plain continues for 5 miles, the going being over sand.

Another 2 miles over the plain and Puk-ta is reached.

16	Puk-ta ..	Shung-gru-tru-ga.	12 $\frac{1}{2}$	231 $\frac{1}{2}$	At $3\frac{1}{2}$ miles from Puk-ta is an easy pass, the Pengdang La. This is crossed, and level ground is again traversed to the camp at Shung-gru-tru-ga.
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ROUTE No. 72—*concl'd.*

The Tsang-po flows close by and is here 60 yards in width. It can be crossed in a skin boat kept by the villages. During October, however, the floes of ice render it impassable.

17	Shung-Gru-tru-ga.	Klang-Gyap ..	12	243½	On leaving camp the path leads over the plain to the south-west and at the 4th mile crosses the Sho-te Tsang-po. This stream is always fordable, except in winter when it is crossed on the ice. The plain continues, having here a width of 5 miles; it is stony and covered with low brushwood.
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18	Klang-Gyap ..	Rela ..	15	258½	The path continues west over the plain, which is covered with scrub. At the 5th mile a low ridge is crossed, after which it again traverses level ground to Rela.
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19	Rela ..	Hrü Jong ..	14	272½	After advancing over the plain for 5 miles, caravans cross the Rha-pi La, the ascent and descent of which are steep. After this the road is fairly level as far as Hrü Jong.
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20	Hrü Jong ..	Tra-dom ..	14½	287	On leaving Hrü Jong the route continues over the plain. At 9½ miles the Brahmaputra is crossed: in summer forded and in winter crossed on the ice. The ford is not a difficult one.
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Three miles further on a small ridge has to be crossed; after which the road leads through heavy sand to Tra-dom (Route No. 2, stage 113).

Route No. 73.

FROM MISAR (MEN-ZE) TO TI-BU *viâ* TO-LING.

Authority and date.—CAPTAIN C. G. RAWLING, 1st Somersetshire Light Infantry. Date 1905. (From Sub-Surveyor Ram Singh's Report.)

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
..	Misar ..	..	..	See Route No. 2, stage 132.

ROUTE No. 73—*contd.*

1	Misar	..	Kyung-Lung 14,700 feet.	17	17	From Misar the path takes a southerly direction and at $1\frac{1}{2}$ miles crosses the river by a
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ford 1 foot deep and 30 yards wide. The road gradually turns to the south-west, descending gently. At $6\frac{1}{2}$ miles it enters an open valley where the grazing is good; another branch of the Sotlej is then forded, the depth of water being 18 inches and the width 40 yards. A mile beyond the ford stands the ruined *gompa* of Pal-kia.

The path now rises sharply for 800 feet and 2 miles further on descends slowly to the banks of the Sotlej which can be crossed here on the ice during winter, but is impassable during the summer months. During this latter season the route continues along the right bank of the river and the river is crossed opposite Kyunglung by a small cantilever wooden bridge, resting on stone supports, 20 feet in length, 3 feet in width and 10 feet above the river.

A valley of considerable size is then entered, containing many springs and some cultivation. In it lies the camping ground of Kyung-lung.

See Route No. 15, stage 14.

2	Kyung-lung	..	Nak-Tsok, 13,600 feet.	16	33	The roadway continues along the left bank of the Sotlej until at 3 miles it leaves the river
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and ascends a steep ridge. From here onwards the path leads across undulating ground, much broken by dry and deep ravines. Just before reaching Nak-tsok, there is a steep descent of 50 feet. The going is bad throughout.

3	Nak-tsok	..	Tra-lung, 13,909 feet.	12	45	Within a short distance of the camp at Nak-tsok the road rises steeply for 500 feet; it then
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continues level over a plateau, and at 7 miles passes through a gap in the hills on either side.

The country continues fairly level until just before reaching the camp at Tra-lung, where there is another drop of 500 feet; going rough.

No water, grass or fuel is procurable along this stage.

4	Tra-lung	..	Dong-po, 14,200 feet.	5	50	The path leads up and down spurs and in and out of ravines until Dong-po is reached.
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The going is rough; and no water, grass or fuel is procurable along the road.

5	Dong-po	..	Da-pa Jong, 13,800 feet.	16	66	Just beyond the last camp the Lak-chu is crossed; it has at this time of the year a
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width of 20 yards and a depth of 9 inches.

For the next six miles the path lies in and out of deep dry ravines after which two houses and some cultivation are passed on the banks of a stream.

ROUTE No. 73—*concl'd.*

The remainder of the journey is over a plain cut up by dry ravines until the Da-pa Tsang-po, 100 yards wide, is met; on the left bank is some cultivation, in the middle of which stands the *jong* and village of Da-pa.

See Route No. 16, stage 2.

6	Da-Pa Jong ..	Trakla, 13,100 feet.	14	82	Leaving Da-pa the first half mile is a steep ascent and the path passes through narrow gorges between boulders. At 4 miles the small village and <i>gompa</i> of Ser-rik are passed. Here there is some cultivation. The path now becomes rough, passing many ravines, some of which contain water.
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At 11 miles the Ang-gong La is crossed, below and beyond which are the ruins of a village and *gompa*.

Two miles to the west lies Mang-nang, and one mile further on is the camping-ground of Tra' la.

There is no grass along this road, but there is much scrub jungle near the river.

7	Trak-La ..	To-ling, 12,200 feet.	12	92	The Mang-nang river is crossed by an easy ford.
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For the next 6 miles the road slowly ascends, after which a descent at an easy gradient leads to Toling.

This road is in fair condition, but many ravines are crossed on the way. See Route No. 12, stage 12.

8	To ling ..	Ti-bu ..			A straight road and a level one, with very good going leads up the ravine from Toling to Ti-bu, <i>vide</i> Route No. 5, stage 28.
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Route No. 74.

FROM DEMCHOK TO TOLING *via* MEDOKDING, SHANGTSE AND DUNKHAR.

Authority and date.—Trigonometrical survey of 1871-73.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
1	Demchok ..	Demchok-phu	9½	9½	Demchok-phu is a village on left bank of Indus.

ROUTE No. 74—*concl'd.*

2	Demchok-phu	Deboche ..	11	20½	Road at first along banks of a small stream; then a very high snowy range
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called Charding La is crossed. This range runs in a south-easterly direction nearly parallel with the Indus at a distance of from 10 to 25 miles.

3	Deboche ..	Medokding ..	15	35½	Medokding is a village.
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4	Medokding ..	Dilchia Chini ..	8	43½	Several small streams running in a south-westerly direction are crossed. Dilchia Chini
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is at the junction of two streams.

5	Dilchia ..	Right bank Lambotse R.	16	59½	The Lambotse flows in a south-westerly direction. A small tributary of the Lambotse
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is crossed within a few miles of the river.

6	Right Bank Lambotse R.	Chioktse ..	11½	71½	Chioktse is a village on the banks of a tributary of the Lambotse. The large village of
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Rabgyaling is about 2½ miles to the north-west of Chioktse. There is a monastery at Rabgyaling. See Route No. 6, stage 8.

7	Chioktse ..	Shangtsi ..	6½	77½	Shangtsi is a village on the banks of a stream running in a south-westerly direction. See
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Route No. 86, stage 8.

8	Shangtsi ..	Tibu ..	12½	90½	A very high snowy peak about 15 miles to the east of this station. The range of hills
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which was crossed at Charding La appear to bend inwards towards this station. See Route No. 5, stage 28.

9	Tibu ..	Dunkar ..	8½	99	Dunkar is a large village on the banks of a stream running south-west. High mountain
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range to east. See Route No. 5, stage 29.

10	Dunkar ..	To-ling ..	14½	113½	See Route No. 12, stage 12.
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Route No. 75.

FROM GARTOK TO CHOCHO (LANG CHU VALLEY).

Authority and date.—H. CALVERT, I.C.S., 1906.*Epitome.*

This route would be quite easy were it not for the pass, the Gangril La, which is 19,400 feet, the approach to which from both sides is very difficult. Traders use this route. Laden yaks and saddle ponies can be taken. There is no fuel but yak dung; water is plentiful. Thirty-three miles in 3 stages. The route would not be followed except by a small party in case of necessity.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
..	....	Gartok ..	..	..	See Route No. 5, stage 32.
1	Gartok ..	Sumdo Barmo	12	12	About 5 miles along the right bank of the Gartanchu, tending, however, eastwards of the stream, then turn up a <i>nala</i> ascending gradually for about 6½ miles. Camp anywhere. Fuel ceases to be found shortly after turning up the <i>nala</i> .
2	Sumdo Barmo	Umbu Siru ..	12	24	Proceed straight up <i>nala</i> , turning to the right to the crest of the Gangril La (about 19,400 feet). The path gets bad near the top owing to loose stones. Very little snow in August. The descent leads to an open <i>nala</i> , which must be left and a crest to the left (about 18,000 feet) crossed, keep to the right from this crest and descend to a stream and camp anywhere near it. A very exhaustive march which occupies a full day.
3	Umbu Siru ..	Chocho Yarsa	9	33	A gentle descent over easy ground along a <i>nala</i> which joins the Langchu valley close to Chocho Yarsa.

The valley is from 400 to 800 yards broad with a flat bottom which is much cut up by grassy knobs. The Langchu is here a small easily fordable stream, 10 to 15 feet broad. Chocho is about 16,000 feet high. The valley is comprised in the district of the Chocho Ponbo who lives at Chocho Yarsa; there are a few black tents scattered up and down. Fuel is scarce. Fish are plentiful in the Langchu. See Route No. 76.

Route No. 76.

FROM GARGUNSA TO CHOCHO (LANG CHU VALLEY).

Authority and date.—H. CALVERT, I.C.S., 1906.*Epitome.*

This route is difficult throughout. Fuel is scarce and grass not plentiful. The pass (Lepta La, 18,900 feet) is difficult. It has more extensive camping-grounds *en route* than Route 4. Thirty-two miles in 3 stages. The route is only practicable for small parties.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
..	....	Gargunsa ..	..	..	See Route No. 2, stage 139.
1	Gargunsa ..	Khol Bog ..	5	5	Track runs east-south-east across the plain to the river (Gartan-chu), which being in
2	Khol Bog ..	Langchu-tso ..	15	20	five streams is fordable. Camp on the bank of the easternmost stream, beyond which there is no water. Fuel is plentiful.
3	Langchu-tso ..	Chocho ..	12	32	March up <i>nala</i> east-south-east for 2 miles, then north-east to the crest of the Lepta La, 7 miles from camp (18,900 feet). The path goes over stones all the way up, there is no fuel and practically no water. The last mile to the crest is very bad going. From the crest descent is over pebbles; it is easier than the ascent and water is plentiful. The road leads to a small plain about 3 miles across, at the far end of which is the lake (fresh water). No fuel.
					From the lake the path proceeds down a narrow <i>nala</i> which is very difficult for animals

at first. The road becomes easier, fuel becomes plentiful and there is some grass. There are fish in the stream. This *nala* is about 5 miles long; it enters the Langchu valley about 5 miles below Chocho Yarsa (see Route No. 75). The going to Chocho is bad owing to the grassy knobs, 12 to 18 inches high, which cover the bed of the valley. There is no fuel in the main valley.

Route No. 77.

FROM GARTOK TO THOK DALUNG (THE GOLD FIELDS).

Authority and date.—H. CALVERT, I.C.S., 1906.*Epitome.*

The only real difficulty along this route is the Giugti La, 19,650 feet, in the second stage. Laden yaks and riding ponies can be taken. Fuel and grass are scarce. The stages (except at the Indus) are all over 16,000 feet. There are no fixed habitations. The main branch of the Indus is crossed at Chukang (5th stage) where it is easily fordable. Seventy-eight miles in 9 stages. The party should not exceed 50 in number owing to the scarcity of camping-ground at the first and seventh stages and of water at the fourth and seventh stages.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Intetr- mediate.	Total.	
..	....	Gartok	..	..	See Route No. 5, stage 32.
1	Gartok	Donglong Sumdo.	10	10	The path goes up the <i>nala</i> nearly east of Gartok, brushwood soon disappears. There is very little camping-ground. Donglong is at the junction of two side <i>nalas</i> with the main one. The path is stony.
2	Donglong Sumdo.	Rabgyut Maru.	11	21	The path continues up stream for about 2 miles and then ascends to the left just where an easy boad <i>na'a</i> joins in from the right. Steady ascent over stones to crest of Giugti La (19,650). There was a little snow in August. The only difficulty is the tremendous height. Descent steep and difficult at first, easier later. Rabgyut Maru has about five tents. No fuel but dung. The Langchu rises near here.
3	Rabgyut Maru	Nyendo Nakpo	10	31	The path takes a short cut across a low crest and rejoins the Langchu, which it follows to

ROUTE No. 77—*concl'd.*

camp. It is easy going throughout in open country. Camp where the Langchu turns north and a few miles up stream from Chocho (Routes 4 and 5). Grass plentiful; no fuel but dung.

4	Nyendo Nakpo.	Doza Dokkar..	18	49	Beyond Nyenda Nakpo there is no fresh water, so a long march is necessary across easy
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level ground near one or two salt pools to camp, where a tiny stream runs through a little green patch near the hills, where water is sufficient for a party of 50, but even dung is scarce.

5	Doza Dokkar ..	Chukang ..	9	58	An easy ascent straight in front to the Chukang La (16,625 feet) and then a descent over
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stones along a winding *rali* to the Indus. The river is fordable, the bed is stony and firm and affords a level camping-ground. For fuel a weed (*yurke*) is plentiful which barely shows above ground, but has a good woody root. This place is in the Bongba district. There are plenty of fish in the river. The Indus is here enclosed in a narrow enclosed valley. See Route No. 78, stage 3.

6	Chukang ..	Nagomgon ..	7	65	March north along right bank for about four miles, then turn east-north-east up a <i>nala</i> ,
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and camp where the stream begins to disappear. There is another camping-ground 4 miles on.

7	Nagomgon ..	Lungchung ..	11	76	The path keeps almost level for 4 miles to a grassy oasis where is a stream and some fuel,
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and then ascends to the left crossing first a spur and then the Lungchung La (17,150) and keeps high up to the left where is a small stream. Very little camping-ground. (Height 17,050 feet.)

8	Lungchung ..	Thokjalung ..	11	69	The track ascends straight from camp to a crest [Lunja La (17,550 feet) and then des-
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cends to a stream and proceeds up and down twice to Thokjalung.

Thokjalung (deserted in 1906) is a broad sloping valley, with a small stream in it. Fuel and grass are scarce.

9	Thokjalung ..	Thok Dalung ..	9	78	The track crosses three low crests (17,000 to 17,350 feet) and is easy throughout. Thok
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Dalung had about 80 miners' tents in 1906 besides the Serpon (gold field official) and many traders. Sheep are procurable, but grain is very scarce.

Route No. 78.

FROM JIACHAN TO LAJUNCHUMIK AT JUNCTION OF INDUS AND
GARTANG CHU STREAMS *via* GIACHURUF.

Authority and date.—Trigonometrical survey of 1871-73.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
..	..	Jiachen	..	..	Jiachen is on the banks of the Indus. The Indus has not been explored higher than this. It is still a considerable stream here. It is said to rise to the north of Kailas peak. See Trans-Himalaya Sven Hedin 19 8.
1	Jiachen	Churbo	10	10	Road long the right bank of the Indus. Churbo is a monastery on the banks of the Indus.
2	Churbo	Chakrang	10½	20½	Road still along right bank Chakrang is a village on the banks of the Indus.
3	Chakrang	Chukang	15	35½	Road along right bank of Indus. Chukang is a village (see route No. 77, stage 5).
4	Chukang	Giachuruf	11½	47	Road at first up the right bank of Indus; it is then crossed by difficult ford, and road proceeds along left bank to Giachuruf, which is a standing camp. From Jiachen to this place the Indus flows through a rather broad flat valley, and from this place to its junction with the Gartang Chu, it flows through a similar valley, the banks being lined in many places with long patches of low jungle.
5	Giachuruf	Shildong	11½	58½	Road along left bank of Indus. A rather low range running parallel with the river on the left of the road. Shildong is a camp on the left bank of the Indus.
6	Shildong	Giam Chu	12½	71	Road still between Indus and range of low hills as above. Giam Chu is on the left bank.
7	Giam Chu	Thankur	12½	83½	Road still along left bank of the Indus; a large spring passed soon after leaving Giam Chu.

ROUTE No. 78—*concl'd.*

Low range still on the left of road. Thankur is a village on the right bank of the Indus.

8	Thankur	..	Pekia	..	11½	95	Road as above. Pekia is a village on left bank.
9	Pekia	..	Burkung	..	9	104	Road as above. Low jungle bushes on the left of road. Before reaching Burkung a

large stream from the north-east runs into the Indus. Burkung is a village on the right bank.

10	Burkung	..	Marku	..	8½	112½	Road as above. Marku is a camp on the left bank of the Indus.
11	Marku	..	Dakmaru	..	17½	130	Road still along left bank. Dakmaru is a village on left bank of the Indus.
12	Dakmaru	..	Ralajung	..	12½	14½	About three quarters of the way the Lang Chu, a large stream from the south-east, falling

into the Indus, is crossed. Ralajung is on the left bank of the Indus.

13	Ralajung	..	Lajunchumik	9½	152	Lajunchumik is at the junction of Indus and Gartang Chu rivers, Height 13,020 feet.
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See Route No. 2, stage 141.

Route No. 79.

FROM TASHIGONG TO RUDOK.

Authority and date.—H. CALVERT, I.C.S., 1906.

Epitome.

This route is passable for laden yaks and riding ponies; fuel and water are fairly plentiful, and grass also except at the first stage.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
..	..	Tashigong	..	..	See Route 2, stage 142 and Route 4, stage 9.

ROUTE No. 79—*concl'd.*

1	Tashigong ..	Camp ..	14	14	Crossing the Indus in front of Tashigong monastery, the path proceeds up the opposite hillside and winds round over sandhills to a broad dry valley which it crosses. Camp by a small stream in a side <i>nala</i> (narrow) where there is fuel. The stream is a very small one.
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2	Camp ..	Churkang ..	15	29	From camp the path ascends a pass about 16,500 feet, and then proceeds almost due north to Churkang along a broad <i>nala</i> . At Churkang is a two-roomed rest-hut on the river bank. Grass plentiful; fuel near —by.
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3	Churkang ..	Roksum ..	16	45	The path proceeds straight down stream to where the Gulchu joins from the east. Here is another rest-house. The march can be easily divided, if desired. From Roksum a trade route goes to Leh and another to the gold fields, (Route No. 80).
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6	Roksum ..	Rudok ..	19	64	From Roksum to Rudok is 19 miles along the same stream until Rudok is seen, when the pa'h leaves the river. Fuel is plentiful and the intermediate camp can be pitched almost anywhere. Rudok is situated in one corner of a level plain, on a rocky eminence. At the foot are traders' and other houses, on the hill are 40 or more houses of zemindars and lamas; above are the three monasteries and crowning the eminence is the Dzong. The buildings are almost confined to the south face. From the Dzong to the eastern extremity runs a thick wall terminating in a bastion now in bad repair. From here another wall runs along the face of the north side of the hill, but is soon lost in ruins. From the same bastion another wall runs along the south face till it is lost amongst the houses. These defences are in bad repair. The south (inhabited) face of the rock is very steep; many of the old houses are in ruins, and the path up the hill is narrow and winding and only allows persons to pass in single file. The houses and ruins and the steep slopes are serious obstacles to a body of men approaching the Dzong,
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The north face is steeper still but is fairly clear of obstacles.

The west edge of the hill is precipitous and is crowned by a monastery.

The east edge has the easiest slope. Across the south front runs a small stream which spreads out into swamps. On the north-west is an artificial lake; east of this are fields. The Dzongpon of Rudok is usually a lama appointed from Lhasa. The place is considered unusually sacred and is consequently of some political importance. Its population is said to have been about 2,000 at the time of the Sikh invasion; at present it probably does not exceed 300, excluding visitors.

Route No. 80.

FROM ROKSUM TO THOK DALUNG (THE GOLD FIELDS).

Authority and date.—H. CALVERT, I.C.S., 1906.*Epitome.*

This is the Rudok-Lhasa road. An easy level route the whole way, 107 miles in 7 stages, the difficulties are the absence of water at stage 4 and of fuel at stage 6; the route lies along a broad *nala* with generally a stony bed, the only rise is at the approach to Komgong. This would be the easiest route to the gold fields; it is used by Ladakh and Lahul traders. It is practicable for pack animals. There is a steady rise from 14,500 at Roksum to 15,900 at Thok Dalung.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
		Roksum ..			See Route 79, stage 3.
1	Roksum ..	Gul	22	22	Follow the <i>nala</i> up the Gulohu to a lake, 22 miles from Roksum. The journey can be broken in several places as there is plenty of water and fuel. The staging hut at Karnak is on this route 18 miles from Roksum. There are various black tents in the <i>nala</i> .
2	Gul	Rawang ..	16	38	The route continues along the same almost straight <i>nala</i> past a string of five lakes to Rawang, staging hut on the shores of the Phondok tso. There is a small encampment here.
3	Rawang ..	Ratan or Rator.	8	46	The path passes along the north bank of the Phondoktso to a fresh water stream near its east end. The lake water is brackish. Beyond this stream there is no fresh water.

ROUTE No. 80—*concl'd.*

4	Ratan ..	Dabgya ..	19	65	The main valley is followed throughout this distance of 34 miles; there is no water between the stream at Rator and a stream at Amkabjur, hence the necessity for two long marches. There is fuel along the route and there are puddles after rain. If water be carried, the journey may be divided into three marches. There are of course no habitations. Amkabjur is the place where a stream joins the route from the Aling Gangri range to the south. There is no grass here.
5	Dabgya ..	Amkabjur ..	15	80	

6 | Amkabjur .. | Komgong .. | 12 | 92 | The route follows the stream for about 6 miles over the stony bed of the *nala* to a place, Dakorkor, where a *na'a* joins from the south. At Dakorkor are usually a few black tents. The route turns south up the *nala*, crosses a ridge at the top and drops down about 900 feet to Komgong. Here there is water and grass but very little fuel; there are usually one or two black tents.

7	Komgong ..	Thok Dalung ..	15	107	A straight route along a <i>nala</i> , up stream till this flows in from the Aling Gangri range, then comes a dry stretch until the Dalung stream joins from the right. See Route No. 77.
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Route No. 81.

FROM LEH TO LHASA *viâ* NOH, THOK DAURAKPA AND SENJA JONG.

Authority and date.—PUNDIT NAIN SINGH, 1874-75.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- mediate.	Total.	
..	..	Leh, 11,500 feet.	..	..	Capital of Ladakh. See Route No. 2, stage 157.
1	Leh ..	Tikshe ..	10	10	Good road up the Indus valley. The village of Tikshe contains about 600 inhabitants

ROUTE No. 81—*contd.*

2	Tikshe	..	Chimray, 11,890 feet.	15	25	Up the Indus valley for 10 miles; road indiffer- ent; after leaving the Indus the road goes up
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a well cultivated branch valley to the north, to Chimray a village of about 500 inhabitants. Bad camping-ground. See Route No. 82.

3	Chimray	..	Zingral, 15,780 feet.	8	33	Up the valley for about 3 miles until it forks road then passes for 1½ miles up the eastward
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branch to the village of Sakti, beyond this the ascent to Zingral is steep; no village; good camping-ground. At Zingral two roads separate, one going over the Chang La and the other over the Kay La; the road to Tankse by the latter route is shorter by 6 miles than by the former, but is more difficult for laden animals. See Route No. 82.

4	Zingral	..	Tsultak, 15,590 feet.	8	41	Up the most northerly of the two valleys. An easy but stony ascent of 2 miles to the top
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of the Chang La pass (17,200 feet). A very gradual descent of 4 miles, after which the road turns abruptly to the east. At Tsultak is a small lake; no village; good camping-ground. Though the road over the pass is not very steep, it is difficult for loaded animals on account of the badness of the road, which is a mere track, winding through rocks and boulders. See Route No. 82.

5	Tsultak	..	Tankse, 12,900 feet.	14	55	Down a valley for 6½ miles of easy road; cross the shoulder of a hill (into a valley
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which drains into the Shyok river) to Durga, a small village in the Tankse valley; ascends the valley to the large village of Tankse, the residence of the headman of the district of the same name; supplies of all sorts procurable. Behind the village is a valley up which runs the road to the Kay La. See Route No. 82.

6	Tankse	..	Chakar-talao	14	69	Valley above Tankse narrows for 6 miles, and then turns to the south and opens out; 2 miles
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further on is Muglib, a very small village; for 3 miles the bottom of the valley is a grassy swamp, then narrows for 2 miles of gentle ascent among rocky boulders. At Chakar-talao is a small pond, some times dry in summer; coarse grass on farther side of it.

7	Chakar-talao	..	Lukong, 14,130 feet.	7½	76½	Five miles up valley to north-west end of Pangong lake; water salt; 2 miles due
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north from end of lake to Lukong, where there is a small patch of cultivation, with a stream running into the lake.

ROUTE No. 81—*contd.*

8	Lukong	..	Chagra, 14,130 feet.	8	84½	Chagra is a summer pasture ground of Tartars; one or two stone huts; grass plentiful, and
fish in the stream.						
9	Chagra	..	Churkong	6	90½	Churkon is a ruined rest-house at foot of the Lankar or Marsimik La; road good
up stream all the way; grass and burtsi at camp.						
10	Churkong	..	Pangur Gongma 17,670 feet.	9	99½	The road crosses the range (which separates the lake Lukong drainage from that of the
Chang Chenmo (river) by the Marsimik pass (18,420 feet) and instead of following the Yarkand route to the Change Chenmo valley), the road passes over elevated ground to the east of the pass into the road of another valley which drains into the Pangong lake; the road then crosses, by the Kiu La, a high spur from the main range.						
11	Pangur Gongma		Ningri or Rongnak, 16,250 feet	5	104½	Road follows down a large stream which flows to Pangong lake, and in summer is difficult to
cross; grass and burtsi at camp.						
12	Ningri	..	Niagzu or Rowang Yokma, 15,390 feet.	8	112½	Road passes for 8 miles downstream to Mandal and then turns up a branch valley
(Tsokiok) containing abundance of grass and jungle wood. The camp is at the junction of three streams, and is on the frontier between Ladakh and Tibet.						
13	Niagzu	..	Kaisarpu, 16,000 feet.	12	124½	Good road along Tsokiok stream. Three tents of Noh shepherds at camp.
14	Kaisarpo	..	Gonu	6	130½	Road continues up valley near the head of which two passes (17,300 feet and 17,700 feet respectively) have to be crossed. A frontier guard stationed here.
15	Gonu	..	Chuzan, 15,840 feet.	11	141½	Road down valley which opens into a grassy plain. Several springs near camp from which
a plentiful supply of good drinking water is obtained.						
16	Chuzan	..	Pal	15	156½	Road down valley. Several springs near camp Pal is on the northern bank of the Pangong lake, the water of which is brackish. Route No. 90, stage 15, joins in here

ROUTE No. 81—*contd.*

17	Pal	..	Camp 86	..	10	176½	The going is firm and good, but dusty along the shores of Nyak Tso, and Bum Tso.
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Fresh water can be drawn from the lakes all along the road. Grass and fuel at Camp 86 plentiful.

18	Camp 86	..	Camp 85	..	9	185½	The route, which during the last two marches has been a well worn sheep track, now becomes firm and good. Springs are passed on the road, grass is everywhere long and rich, and fuel is plentiful. Duck and teal abound on the shores of the lake, and the waters are full of trout. Plains suitable for camping stretch out in all directions, and ponies roam all over the Noh plain. The Kheo river runs through it past Camp 85, and finally falls into Tso Nyak.
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19	Camp 85	..	Noh	..	5	190½	Five miles along a good sheep track, skirting the foot of the mountains, took us to the village of Noh. The road runs up the right bank of the Kheo river the whole way. Grass, fuel and water are plentiful. At the village grain and <i>suttoo</i> are stored in small quantities, also rice, sugar, and salt. The Kheo river is fordable at many points, but below the village it is nowhere less than 3 feet deep.
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20	Noh	..	Gangra, 13,970 feet.	4	194½	A stream from the north-east, 40 paces wide and 3 feet deep, here joins the Pangong lake; camp beyond the river; abundance of grass. Yaks' dung in great quantities used as fuel; opposite Gangra a stream flows in the Pangong lake from Rudok (see Route No. 79).
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21	Gangra	..	Zinga, 13,960 feet.	11	205½	At 4½ miles from Gangra is the termination of a series of lakes known as the Pangong, or all three under different names, viz., Pangong, Nyok Tso, and Rum Tso, a small stream 8 paces broad and 1½ feet deep enters it at the east end. From this point to Zinga the road passes along a broad and nearly level plain about 6 miles in width and bounded on north and south by grass-covered mountains. At camp were four tents of shepherds.
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22	Zinga	..	Khala Chaka—13,960 feet.	6	211½	Road continues along grassy valley (locally termed Sang) to camp which is on the north side of salt water lake about 7 miles in circumference. Water from springs, and many wild kiang. About 5 miles south-east of the lake is another salt lake, the Dakhong Chak to the north of which is a very black conspicuous stony mountain called Gyail, which the Pandit was informed contains
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ROUTE No. 81—*contd.*

numerous caves in which are blocks of crystal (silkar) the size of a man. These are objects of worship to the people of the neighbourhood. From this camp a large open valley extends in an easterly direction as far as the eye can reach.

23	Khaia Chaka ..	Lumadodmo, 14,210 feet.	13	224½	Road good and over level plain. To the south several small lakes are passed.
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Dung of cattle (chio) used for fuel here and throughout the rest of the journey to Lhasa, except where otherwise specified. There are warm springs in the neighbourhood, said to possess medicinal properties, which are frequented by the surrounding population in winter.

24	Lumadodmo ..	Bujung, 14,290 feet.	14	238½	Road continues along a level grassy valley varying from 6 to 10 miles in width, and
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bounded on the north and south by grassy hills. Camp on the north and edge of a freshwater lake about 10 miles in circumference, and tenanted by numerous wild fowl. The banks of the lake are covered with shells. A stream enters the east end, and there is one outlet at the opposite end of the lake through which a stream passes to the salt-water lake on the west. A view of the Alung Gangri peaks was obtained from here.

25	Bujung ..	Chabuk Zinga, 14,400 feet.	16	254½	Road continues along course of stream, which still runs in a broad open valley; at camp
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two small huts and 4 or 5 tents. Two miles to the north-west was another encampment of 15 tents.

26	Chabuk Zinga	Kangni Chumik, 15,300 feet.	14	268½	At 3½ miles a road goes off in a south-easterly direction to Tingchi and Thok Jalung
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(see Route No. 80). No fresh water on this march or at camp, which was in the neighbourhood of an extensive salt marsh. North of the camp are some bare red-coloured mountains, and the water and mud of the march was the same colour, as also is the salt which is extracted therefrom. Another view of the Alung Gangri peaks was obtained from here.

27	Kangni Chumik	Mindum Chaka, 14,860 feet.	20	288½	Road as usual. Mindum Chaka is a salt lake and is about 5 miles from Chamchu.
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See Route No. 91.

28	Mindum Chaka	Thachap Tso 15,130 feet.	14	302½	Came across fresh water about half-way to camp. The plain along which the road
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lies was covered with numerous large herds of kiang and antelope which exhibited but little fear. Thachap Tso is a freshwater lake, and into it

ROUTE No. 81—*contd.*

flows a large stream which comes from a mass of snow-covered hills lying to the north-east of the lake. This stream is bordered on both sides by an extensive jungle contain in willow, tamarisk and other trees and shrubs.

29	Thachap Tso ..	Thachap (river bank).	10½	312½	Road along bank of river, the water of which occasionally disappears underground and re-appears lower down. This stream flows in a south-easterly direction.
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30	Thachap ..	Chumik, 11,690 feet.	12	334½	Several small lakes to east of road; east of the camp is a very extensive plain extending as far as the eye can reach. Good water at camp from spring. Fuel from dung of wild horses.
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31	Chumik ..	Chodol Tsangpo, 4,55 feet.	11½	346	Camp on stream 24 paces wide and 2 feet deep, with sluggish current. Near it is the Purang Chaka salt lake, where the pundit observed quantities of borax, which is locally called "bul."
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32	C. odol ..	Purang Chak, 14,270 feet.	13	359	Camp on north edge of lake; wood plentiful; grass scarce.
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33	Purang Chaka ..	Purang Chaka, 2nd Camp.	6	365	Camp at springs surrounded on all sides by bul, which lies in beds from 2 to 8 or 10 feet in depth, and which, being of a light loose consistency, gives away under the weight of man or beast.
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34	Purang Chaka 2nd Camp	Pang Bhup, 15,030 feet.	13	378	No water on road, but abundance of grass. Springs at camp and Tibetan "Manis"; it is a favourite camping ground of the nomads in the cold weather. A large plain extends eastwards from this camping-ground. Several snowy peaks visible towards the north.
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35	Pang Bhup ..	Hissik Chaka ..	12	390	Road as usual over level ground; Hissik Chaka is a small salt lake.
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36	Hissik ..	Nimecho Chaka, 14,000 feet.	17	407	Road perfectly level no drinking water on road, but many fresh springs at camp and abundance of firewood.
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ROUTE No. 81—*contd.*

37	Nimcho Chaka	Nimcho Chaka, 2nd Camp.	5	412	Fuel, grass and water in abundance; south of camp a snowy range is visible running east and west.
38	Nimcho Chaka, 2nd Camp.	Huma Tso, 14,270'	12	424	Several Buddhist "Manis," and two large fresh water lakes; no mountains visible on the north, but an extensive level grassy plain, studded with wild animals, extending as far as the eye can reach.
39	Huma Tso ..	Yugar, 14,460'	16	442	Grass, fuel and water from a tank which is supplied by rain-water only. This tank dries up at certain times of the year.
40	Yugar ..	Mango, 14,230'	8½	450½	Six tents of Garche Khampas; grass plen- tiful; cow-dung for fuel; water from a small stream.
41	Mango ..	Noring Tso, 153,750'	10½	460½	Twelve tents of Kham- pas; water from springs; grass and fuel plentiful.
42	Noring Tso ..	Yakar, 13,770'	8½	468½	Camp on the north bank of the Noring Tso Lake; 10 or 12 tents of Khampas; waters from springs; grass and fuel plentiful.
43	Yakar ..	Sakti, 14,380'	10½	479	Water from springs; grass and fuel plenti- ful.
44	Sakti ..	Kezing or Pha- lung Yakda, 14,690'	5	484	Water, grass and fuel; seven or eight Kham- pa tents.
45	Kezing ..	Kyang dhui Chu, 14,780'	10	494	Small tank; good water; grass and fuel plenti- ful.
46	Kyang dhui ..	Jom Mara, 15,700'	11½	505½	A small stream of water at camp; grass and fuel plentiful; an old gold mine at a dis- tance of 5½ miles.

ROUTE No. 81—*contd.*

47	Jom Maru ..	Tarnguk, 14,810'	13	518½	Pass at 5½ miles at Thok Amar; an old gold mine with an area of about one square mile.
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Camp inhabited during the cold season only; a large salt lake, called Tong Tso Chaka, lies to the north-east at a distance of 5 miles. Lofty mountains visible on the north, and a very high snowy peak called Shyalchi Kang Jang visible towards the south-east; a large plain extends towards the east.

48	Tarnguk ..	Chirang Golip, 14,230.'	16½	535	The road is here crossed by another track, which leads from Mansarowar to Nakchukha and the Kham country.
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49	Chirang Golip..	Thok Marshera, 14,830.'	18	553	Cross <i>en route</i> a large river which flows in three channels from a large mass of snowy peaks called Shyalchi Kang Jang, about 30 miles south of the road. This river is traversed with great difficulty in the summer months although nowhere more than a foot deep at the time of the Pundit's visit (July); it flows into the Tashi Bhup Lake, whose southern shore is about 2 miles north of the road. From the east end of the lake, a stream is said to issue towards Nakchu. The lake is about 13 miles in length by 8 miles in breadth.
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50	Thok Marshera	Thok Daurakpa, 15,280.'	12½	565½	Road somewhat hilly pass <i>en route</i> the deserted mine of Thok Dagchar. The direct road from Shyal Chu passes over a level plain, but the Pundit took a difficult and circuitous route over the hills, in order to avoid robbers. A large range of red coloured hills running east and west lies to the north of the camp. Thok Daurakpa is a large gold-field, containing 32 houses and tents of diggers. Changpas belong to the Nakchang Pontod Changma country; grass, fuel and water scarce.
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51	Thok Daurakpa	Nale, 15,960'	10	575½	Road level; water, grass and fuel are obtainable.
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52	Nale ..	Diokar Karpo, 16,090.'	12	587½	Cross a low pass, otherwise the road is level, as usual, passing over an extensive grass covered plain.
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53	Diokar Karpo..	Beda Nakchuk, 16,330.'	14	601½	Camp on the left bank of the Chuzan Tsangpo, a small river flowing east.
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ROUTE No. 81—*contd.*

54	Beda Nakehuk.	Lhung Nakdo, 16,140.'	10	611½	Pass several Changpa tents <i>en route</i> . A high snowy peak called Munga Kangri visible
over the plain to the north-east. A large encampment of shepherds (12 tents) and residence of a district official at Gobrang; two miles from camp a road is said to go from here to Nag-chu-kha (north of Lhasa), a distance of at least 600 miles, over a nearly level plain. See Route No. 1, stage 47. The road keeps in the Sang of the same stream the whole way.					
55	Lhung Nakdo..	Ragu, 15,970'	8½	620	Pass several tents of shepherds; enormous herds of antelope were seen from the road.
56½	Ragu ..	Gipu Khara, 15,840.'	16	636	Pass <i>en route</i> the Bobchang stream, 20 paces wide and one foot in depth, an affluent of
the Chuzan.					
57	Gipu Khara ..	Gara-dung-kung, 16,590.'	14½	650	Camp near the abandoned gold-field of Chigimili. Water, grass and fuel in
abundance.					
58	Gara-dung-kung	Nawa Chidmo, 15,720.'	12½	673	Road ascends with an easy slope for 7 miles to the Kilong La (18,170 feet) after crossing
which it follows a stream which subsequently flows northwards to the Tang Jung Tso. There was no snow on the pass. Although much snow was lying on the peaks to the north, which rise to an average height of 20,000 feet, and which forms a portion of a lofty range which extends in a southerly direction to the west of the Dangra Yum Tso, and culminates in enormous peaks known as the Targot La, from which, again, a snowy range extends eastward for a distance of 180 miles.					
59	Nawa Chidmo ..	Yomo Zinga or Wombo, 15,240'	12½	685½	Enormous lakes to north and south of road. Wombo is a large village containing a
monastery and 35 houses surrounded by cultivation. This was the first time the Pundit had seen signs of cultivation since leaving Chabuk Zinga.					
60	Wombo ..	Thungru, 14,770'	11	696½	Road follows the northern border of the Dangra Yum Tso. At Thungru are the ruins
of an old stone fort, said to have belonged centuries ago to the Raja who at that time ruled over the whole of the Hor country.					

ROUTE No. 81—*contd.*

61	Thungra ..	Chiku Larcha..	4½	701	The road ascends for 2 miles to the Naithong Pass (15,710 feet) up steepish incline; road good.
62	Chiku Larcha ..	Mubading, 16,160'.	6	707	Cross the Chuku Pass (16,530 feet). Ascent 2 miles; descent to plain 1½ miles. Several shepherd's tents scattered about the banks of the Dungehe Lake, which is 28 miles long by 10 broad.
63	Mubading ..	Ngorai, 15,360'	6	713	Five tents of shepherds at camp, and several others passed <i>en route</i> ; large flocks of sheep scattered over the plain, which extends as flat as a table from the Chuku La to the Chapta Pass, a distance of over 60 miles. Its breadth from north to south at its widest part is little less than 30 miles. It is a beautiful pasture watered by numerous streams and fresh water lakes.
64	Ngorai ..	Gyardo, 15,360'	10	723	A good road goes from here to Shigatse. The first portion of the road is through the Foba country, inhabited by nomads. Between Doba and the Che-huil country is a lofty range which is crossed by a high pass, to the north of which is the Hota Tsangpo, which flows east and north-east, and was crossed by the Pundit in his march. Beyond the Hota Tsangpo is the Che country, which contains many villages, and where much barley and wheat are grown.
65	Gyardo ..	Takdung, 15,400'	13	736	Road passes over a level plain. Many snow peaks visible from the road.
66	Takdung ..	Jhiakta, 15,260'	14½	750½	Road and country as above. Chari Tsangpo flowing southwards into the Daru Tso, crossed half-way.
67	Jhiakta ..	Katmar, 15,200'	10½	761	Road and country as above. Stream flowing southward crossed half-way.
68	Katmar ..	Lome Karmo, 15,360'.	6	767	Road and country as above. Cross Katmar stream after leaving last station.
69	Lome Karmo ..	Kya Kya Roika, 14,770'.	11	778	Cross <i>en route</i> by the Chapta Pass (16,900 feet) a range which separates two streams

ROUTE No. 81—*contd.*

which flow into the Chikut Tso Lake to the north of the road. Camp at the west end of the Kyaring Tso Lake. From this lake a river flows to the Chikut Tso, 111 paces broad and over 3 feet deep, but with a slow current, the largest stream met with on the journey from Leh to this place.

70	Kya Kya Rofka	Kyaring Tso ..	10	788	Road along western bank of lake. Camp on the south edge of lake.
71	Kyaring Tso ..	Denak, 15,480'	12	800	Cross <i>en route</i> the Riku river flowing from the south in three channels, each branch being
about 40 paces in breadth, and one foot in depth. Fifteen tents of the Nakchang Dobas at camp, and a house belonging to the Debong, a high official in Shigatse.					
72	Denak ..	Ngobo Le, 15,330'	11½	811½	Road lies along the southern edge of the Kyaring Chu. Camp on the borders of the
lake.					
73	Ngobo Le ..	Dojam, 15,38'	11½	823	Camp near the east end of the Kyaring Lake.
74	Dojam ..	Senja Jong ..	8½	831	The first considerable village met with since leaving Tankse in Ladakh. It contains

80 houses built of bricks and stones, and 100 tents. It is one of the largest places in the Hor Province, and is the residence of two Jongpon officials. From Lhasa the district is watered by the Dumpho or Hota Tsangpo, which flows in three channels, the largest of which was 73 paces broad and 1½ feet deep. There is no cultivation, and the population, like the greater part of Hor, get their supplies from the Shigatse and Lhasa districts to the south. From Senja Jong, roads go to Shigatse and to Lhasa direct. See Routes 68 and 71.

75	Senja Jong ..	Chupgo ..	5	836½	Country level and well watered. Numerous shepherds' tents. No cultivation. Range of
hills on north of road running parallel with it.					

76	(hupg) ..	Kaisar or Singhya, 15,790'	7½	843½	Road passes through Dhoba Shingkun, and Yakpa districts. The country is level and well-watered, containing about 130 shepherds' tents.
77	Kaisar ..	Nangon-o, 15,720'	10½	854½	
78	Nangongo ..	Yungchen, 14,790'	10	865	
79	Yungchen ..	Dhejen, 15,350'	11½	876½	

ROUTE No. 81—*contd.*

80	Dhejen	..	Kerak, 15,360'	11	887½	Road as usual over rich pasture land with no cultivation. The district is under the
Garpon of Decherik, a subordinate of the Lhasa Government. Many shepherds' tents <i>en route</i> . Water, grass and fuel everywhere plentiful.						
81	Kerak	..	Bulchu, 15,460'	14	901½	Road and country as above.
82	Bulchu	..	Langma Jung, 15,24'	14½	916	Road and country as above.
83	Langma Jung	..	Rakyan Dongpa, 15,340'	13½	929½	Road and country as above.
84	Rakyan	..	Thuigo Chumik, 15,340'	16	945½	At 4 miles cross the Nakchu stream, which flows westward from the Tengri Nur Lake

into another lake north of Langma Jung, from which it is said to issue and flow north to the Nag-chu-kha river. The bed of the Nagchu river is 100 paces wide, and of great depth, but the actual stream is not enough to turn one mill. Camp on the northern edge of the Tengri Nur Lake. See Route No. 71, stage 28.

85	Thuigo	..	Jadar Gompa, 15,400'	7	962½	Two large monasteries near the banks of the Tengri Nur Lake. Abundance of grass,
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water and fuel. See Route No. 71, stage 29.

86	Jadar Gompa	..	Arka Bagu, 15,430'	9	971½	Road and camp on the north edge of the Tengri Nur. Abundance of grass, water
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and fuel.

87	Arka Bagu	..	Dukli, 15,460'	10½	982	Road, camp and supplies as above.
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88	Dukli	..	Dakmar Chuchan, 15,580'	16½	998½	Road, camp, etc., as above. Two small monasteries passed between Arkha and
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Dakmar. Camp at north-east extremity of lake.

89	Dakmar	..	Bago Karmo, 15,710'	16½	1,015	At 8 miles cross the Nya Chu, a small river that flows west into the Tengri Nur. Several
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snowy peaks visible about 25 miles to the east of the road. Road along eastern edge of the Tengri Nur.

ROUTE No. 81—*contd.*

90	Bago Karmo ..	Goglung Yokma, 14,510'.	10	1,025	At 2½ miles cross the Dam Lhargan (or Niargan) Pass (16,900 feet) by an easy road,
which, however, for a mile, lay through freshly-fallen snow about one foot in depth (September).					
91	Goblung Yokma	Kyanglung, 14,320'.	4½	1,029½	Road passes through the Dam plain, which is scattered over with houses in twos and threes. Excellent pastures which supply grazing for numerous herds of yaks. Through a gap in the hills to the east of this plain lies a road which joins at Phendu Chaksam (six marches from Lhasa), the caravan route from Lhasa to Peking <i>via</i> Jang Talung and Nagchukha (see Route Nos. 1 and 63). From Dam near last stage there is a more direct road to Lhasa <i>via</i> Jang Talung. See Route No. 1, stage 37, onwards.
92	Kyanglung ..	Chinbo, 14,340'	10½	1,040	Road lies parallel to the Dam river. At Chinbo this river changes its course and flows through a gap in the hills to the south-east of Chinbo; through the same gap lies a direct road to Lhasa. This joins Route No. 1 at Phendu.
93	Chinbo ..	Banks of La Chu.	8½	1,048½	Road passes up the Nindung Valley, through which flows the La Chu, a river which flows by a circuitous course to Lhasa. There are several scattered hamlets in the La Chu Valley, which is bounded on the north by the Nijen Thang La snowy mountain, at the southern edge of which is a thick belt of low forest.
94	La Chu ..	Jung Chu, 14,240'.	10	1,058½	Camp near the head of the La Chu Valley.
95	Jung Chu ..	Jualung, 14,700'	6	1,064½	Road lies up a tribu- tary of the La Chu. Pass <i>en route</i> the small village of Bakna.
96	Jualung ..	Yulo Gongma, 13,020'.	8½	1,073½	Between 4 and 5 miles of ascent to the Baknak Pass (18,000 feet). The last part is very steep. Road good and no snow on the pass in September. Rapid descent to camp.
97	Yulo Gongma	Tulung Dinga, 13,020'.	7	1,080½	Steady descent down stream to the village of Dinga, containing a monastery and 20 houses. Cultivation met here for the first time since leaving Womba, or Zomo Zinga (stage 59).

ROUTE No. 81—*concl'd.*

98	Tulung Dinga..	Yungjuk, 12,630'	9½	1,090	Pass <i>en route</i> the town of Dhejin Jong, the residence of a Jongpon. The direct road to Lhasa from Senja Jong passes through Dhenjin (see stage 74 and Route No. 71, stage 23). Yungjuk is a village.
99	Yungjuk ..	Nai, 12,510'	8	1,098	Road passes through a well-cultivated and thickly inhabited country. Road along banks of La Chu river. Nai is a village. This must be near Tse-shing (Route No. 68).
100	Nai ..	Saibu ..	6	1,104	Pass several other villages <i>en route</i> . Between Nai and Saibu a stream enters the Telung Valley from the west, up which lies the large monastery of Telung Churbu or Chubuk, containing 200 Lamas. A long day's journey. Road as before along banks of river. Saibu is a village (see Route No. 68).
101	Saibu ..	Langdong, 12,100'	6	1,110	Pass the monastery of Kimulung and several other monasteries. Road still along banks of river. Langdong is a village (see Route No. 68).
102	Langdong ..	Lhasa, 11,910'	14	1,124	See Route No. 68.

Route No. 82.

FROM LEH TO POLU *viâ* LANAK LA.

Authority and date.—CAPTAIN C. G. RAWLING, 1905, and COLONEL C. D. BRUCE, 1906.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
	..	Leh ..	..	..	See Route No. 2, stage 157.
1	Leh ..	Ranbirpur, 10,725'	12½	12½	The road from Leh runs in a south-south-east direction, and descending steadily until

ROUTE No. 82—*contd.*

Shay Yukma is reached; continues along the right bank of the Indus, which is on an average about 500 yards distant. The road has been made by the removal of the loose stones to one side, leaving a width of about 11 feet. The roadway consists of deep granite shingle, very trying to laden animals, going up hill to Leh. From Leh to the river Indus, laden ponies take 2½ hours to traverse the distance. From Shay Yukma to Ranbirpur, the name by which Khungsur is known to the natives, the path passes between fields and scattered houses, and is flat and hard. Water is plentiful all along this latter portion. Large numbers of ponies and cattle are to be seen grazing amongst the fields. Several hundreds of maunds of *atta* and "grim" are stored in the scattered hamlets. Also supplies of wood, sufficient for any force which could exist in the country. This place was named Ranbirpur, after a successful engagement fought by the troops of Maharajah Ranbir Singh in 1840.

2	Ranbirpur ..	Chimray, 11,825'	12	24½	The roadway runs by the right bank of the Indus, for 9½ miles; and is in bad condition,
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compelling baggage animals to pick their way between rocks, and through sharp and heavy granite shingle. The road from the 9½ milestone to Chimray is of a similar description, though the going improves. Chimray *Nala* is well cultivated, and at Chimray itself there is a large Lamasery. Grim, *atta* and wood are stored in the houses. Good drinking water flows down the centre of Chimray *nala*. Chimray and Suktee (a village about 3 miles up the *nala*) can supply about 1,000 yaks, 200 ponies and 10,000 sheep and goats. The people in the *nala* are all Buddhists.

3	Chimray ..	Zingral, 15,233'	9½	33½	Zingral is the name given to a small <i>maidan</i> , 2,200 feet below the Chang La. The road-
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way here becomes a mere track, which up till the middle of June follows the stream, and crossing it 1 mile above Suktee, winds up the north-west side of the *nala*. From the middle of June to the beginning of November, the pathway is on the south-east side of the valley, and though very rough and steep, is regularly used by pack animals. Snow lies on the *maidan* until the middle of June. Through the centre of this halting ground runs a small stream. There is room on the *maidan* to encamp a brigade. No wood, and but little grass are available.

4	Zingral ..	Durgu ..	5½	50	From Zingral for 5½ miles the track at this time of the year (June) is on snow.
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The rise in this distance is 2,300 feet and the going very heavy. The snow line at this date was at 15,000 feet. Snow lay very deep on the east side of the Chang La, as low down as the fresh water lake of Tsul Tak at a distance of 7½ miles. All loads have to be carried over the pass by yaks or coolies. On 27th May 1903, it was almost impossible for ponies, even when unloaded, to cross the Chang La (17,600 feet). The rarefied atmosphere at the summit of the pass affects all people unaccustomed to great heights, making walking very trying, and causing mountain sickness.

ROUTE No. 82—*contd.*

The track is almost invisible, owing to no trouble having been taken to clear the boulders away. Six miles above Durgu a fair pathway has been made. The last half mile of the road runs through deep sand lying at a steep angle. Water is everywhere available, and short grass grows along both banks of the main stream which runs from the Chang La. Durgu is a small village of 15 or 16 houses, situated in the Durgu *nala*.

5	Durgu	..	Tankse, 12,700'	8	58	The pathway to Tankse is flat, firm and good for all animal transport. There is a small
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rough bridge at Durgu, but it is of little use as the stream, except during the rains, can be forded anywhere. The valley is well cultivated with wheat, grim and peas, and every house in the valley to the number of about 100 contains a store of these food stuffs. The valley can supply about 500 yaks, 300 ponies and donkeys, and 10,000 sheep. The people are well off mainly owing to the large trade in wool, *pasham*, and fine sheep, and goat skins. Water is plentiful everywhere, and wood is available at Tankse. Grazing for animals is good but the grass is kept short by the numerous sheep, etc. About 10,000 maunds of grim or *ardawa*, as this grain is called when half crushed, are procurable in the Tankse Valley. Just north-east of Tankse the valley narrows to about 500 yards. In the centre of the valley rises a precipitous rock about 150 feet in height crowned with the remains of an old fort.

6	Tankse	..	Muglib, 13,250'	8	66	Muglib consists of two stone houses with about 15 acres of fields. The path from
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Tankse leads through a narrow defile, with a small clear stream in the centre. The pass could be easily defended if the heights were crowned on both sides, an easy matter. The pathway is for the first three miles on soft turf but for the greater part of the distance leads over rough and rocky ground. Excellent grazing is found in the whole valley opposite Muglib for a distance of two miles. Fifty yak and 200 sheep are owned by the inhabitants and we counted 150 goats in the valley. The stream abounds in snow trout.

7	Muglib	..	Pobrang	..	17	83	The route continues along the centre of the valley until the Pangong Lake, distant
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about 10½ miles from Muglib is reached. At 5½ miles the path passes two small lakes called Tsearh Tso on the map but known to the natives by the name of Chaker Talac. These lakes are almost dry at this time of the year but the water is fresh and they abound in trout. The path is rough and stony, and the heat when marching is trying. On arriving within a mile of the shores of Pangong Lake, the path turns sharp to the east, and after 1½ miles more, north-east up the centre of Pobrang Valley, crossing a ridge, 300 feet above the lake just before reaching Pobrang. Drinking water is only to be found for 2 miles in the valley above Muglib, from thence onward until within 5 miles of Pobrang no fresh water can be obtained. All along the route quantities of boortsa are available for fuel. Pobrang, a village of six stone houses

ROUTE No. 82—*contd.*

surrounded by about 25 acres of poor fields, lies in a well-sheltered valley, through the centre of which runs a good stream abounding in large snow trout. Good grazing for $1\frac{1}{2}$ miles by $\frac{1}{2}$ mile wide can be found close to the village. Only small quantities of grain are obtainable. About 100 yak, 30 ponies, and 500 goats are kept in this valley. The inhabitants number about 35, and are obliging. The Pangong Lake is pronounced Pong-goong by the natives.

8	Pobrang ..	Chorkangma ..	8	91	For one mile above Pobrang the path runs along the right bank of the stream, both banks
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of which are covered with short grass. The road then turns sharp to the right, crosses the stream, and continues up the side of a large open *nala*. The ascent is continuous though not steep, the path rising gradually till Chorkangma is reached. Chorkangma is only a fairly level grass plain about 2 acres in extent, with a stream running through it, and with a stone sheep pen in the middle. The path is straight and easy, and in fair condition for baggage animals. The heights on either side command the road, but can be easily occupied and held by picquets. Grazing in the whole *nala* is poor, though Kiang subsist on the grass and boortsa. The latter supplies plentiful fuel.

9	Chorkangma ..	Panglung ..	10 $\frac{1}{2}$	101 $\frac{1}{2}$	From Chorkangma to the summit of the Marsimik La, which the aneroid showed to be
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18,400 feet, the route lay over heavy snow, which was very trying for the ponies and yak, though the ascent is gentle. On the eastern side of the pass, the path descends much more rapidly. The snow at the beginning of June 1903 was deep and soft, and continued for $3\frac{1}{2}$ miles. The pathway then crosses to the eastern side of the *nala*. An attempt has been made to make a fair path along the eastern slope of the valley, but without much success, the going being over sharp slate, and extremely rough.

A steady descent takes place until Panglung is reached. Panglung is the name of a *nala* which runs from the east. At the mouth of this *nala* are the remains of some ruined huts. A very small stream runs down Panglung *na'a*, at the mouth of which is to be found a little grazing. The hills on either side of the main *nala* running into the Chang Chenmo are very precipitous, and on account of the friable nature of their surface are most trying to walk over. Almost everyone feels the effects of mountain sickness on crossing the Marsimik La.

10	Panglung ..	Pamzal, 14,400'	16	117 $\frac{1}{2}$	The path continues for two miles below Panggong on the east side of the <i>nala</i> , and then
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crosses the main stream which is easily fordable at any time of the year. The road which here improves, continues on the left bank of the stream until within two miles of Pamzal, where the stream disappears into its stony bed.

The route now passes between two steep rocks, 50 feet in height, and continues down the centre of the river-bed, the going being very bad. Just

ROUTE No. 82—*contd.*

before reaching Pamzal the path crosses a spur on the right, about 150 feet in height. Pamzal is the name given to the camping-ground where the *nala* just reported upon meets the Chang Chenmo river. Several hundreds of acres of sandy soil are available for encamping. A woody bush, about 6 feet high, grows in great abundance, affording an unlimited supply of good fuel. An enormous quantity of dead wood is also found all around. Water is available from the Chang Chenmo river, which is always fordable. Grass in fair quantities is to be found at rather under $\frac{3}{4}$ mile west of Pamzal, though all transport animals except yak thrive well on the dead leaves of the bushes which grow here. It is impossible to continue any further down the Chang Chenmo stream, as the valley is blocked with a thick growth of bush, through which no path has ever yet been cut. In winter when the river is frozen it is possible to pass down stream on the ice. Hares are numerous. The camping-ground is $\frac{3}{4}$ of a mile north-east of Tsoloo as marked on the trigonometrical survey map.

11	Pamzal	..	Kyam, 15,316'	13	1304	A good road, which rises almost imperceptibly the whole 13 miles, the difference in height
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between Pamzal and Kyam being 1,200 feet. The Chang Chenmo river has, however, to be crossed twice during the march, and great delay is caused thereby at this time of the year, for its bed is full of snow and ice, except exactly over the water itself, and precipitous ice banks, 7 feet high, bound the stream on either side. A little later on, the river is easily fordable anywhere. The usual fording places are five and seven miles, respectively, from Pamzal. Kyam is an open plain lying on the south bank of the river about $2\frac{1}{2}$ miles by 1. Many springs rise at different spots here which water the ground well, and an abundance of good rich grass is the result. On 6th June snow still lay upon the ground.

Only the last year's grass was available for feeding the ponies, but this was still found in fair quantities. One mile south-west of the camping-ground, a warm sulphurous spring rises. The surrounding mountains grow but little vegetation; good grass, however, is found on both the Silung Yokma and Silung Burma *nalas*. Fair quantities of yak and kiang dung are here available for fuel, and take the place of boortsa, of which very little can be obtained. The temperature of the hot springs varies considerably, the greatest heat registered being 125° F.

12	Kyam	..	Camp at the mouth and on the east side of Kepsang <i>nala</i> , 16,433'	94	140	The route lies along the west bank of the Chang Chenmo for two miles whi h it then crosses,
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and running up the *nala* to the west of Jontu station, gradually turns east over the Konka La. It then crosses the Kepsang *nala* to a large and prominent rock cliff on the opposite side of the valley. There is another path, which passes round the south of Jontu station, but it is longer and very rough. The ascent of the Konka La is easy and the going good. Good grass grows in the Kepsang *nala*, and is very plentiful in the next *nala* to the east. Water flows in the Kepsang *nala* for four months from July, but before that month has to be drawn from pools formed by the melted snow.

ROUTE No. 82—*contd.*

13	Kepsang	..	Zaroul	..	17	157	The road is along the north side of the Chang Chenmo Valley. After 2 miles it crosses
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a small pass, 400 feet above the river and after 12 miles of fairly level going another more difficult pass met with. Once over it the road is nearly level as far as Zaroul.

Here small clear streams run down the valley, close by the camping-ground, where last year's grass is fairly plentiful, and the ground flat. No grass or water are obtainable on the road.

14	Zaroul	..	Camp in the circular hollow (late in the year very moist).	14	171	The route runs along the north side of the valley of Chang Chenmo, crossing several
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spurs and *nalas*. Going good on Kiang paths. At the camp there is a little grass and plenty of boortsa. Water has to be obtained by either melting the snow or by digging. No grass was found on the road. Water was met with once, 5 miles from the last camp, at a spring bubbling from the hillside.

15	Circular hollow		Lanak La, 17,566'	14	185	For five miles the path continues on the north side of the Chang Chenmo, then passes
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straight over the Lanak La by a gentle rise of about 700 feet. From the summit the path continues along an almost level plain, the going being excellent. The valley is about 1 mile broad and 10 miles long. Water appears here and there but at Camp 1 it has to be obtained by digging. There is no grass, but plenty of boortsa, which forms fair food for animals and also good fuel. There was but little snow on the pass, and that only what had fallen the previous night. The hills were under snow and the cold intense. At the south-east end of this plain a rough road leads to Rudok, but it is seldom used.

16	Lanak La	..	Burchang <i>nala</i> , on the south of the Shum <i>nala</i> , 17,117'.	15	200	From the Lanak La (Camp 1) the path runs due east for four miles and then bears
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slightly to the north for another six, crossing three ridges and two plains on the way.

The road descends 350 feet in the total distance, the first 10 miles of which are practically level. The going on the whole is good, though in places soft and boggy. No water or fodder is obtainable on the road. The Shum and the small *nala* running into it contain good water and fair grass. The meaning of Shum is "where many *nalas* meet."

17	Burchang	..	Tobonorpo (Red Hills), 17,080.	15	215	The route lies down the centre of the narrow Shum <i>nala</i> for 2 miles, and then debouches
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into the Sumjeling, which means "three roads meeting in a large plain." On entering the plain the direction of march is east-south-east directly towards two prominent red hills about 300 feet in height. All

ROUTE No. 82—contd.

around grass is very plentiful, but water is only obtainable from the end of June to the end of November. Ice and snow can, however, always be obtained at the foot of the mountains. The three roads which meet here are those leading from Tankse on the west, from Rudok which lies southwards across the mountains, and from Arport Tso in the east. During October men from Tankse, Noh and Rudok meet here, and exchange merchandise in the shape of skins, salt, and cloth. Near this camp lines of red stones, collected from the neighbouring hills, mark the spot where the natives lay their antelope snares.

18	Tobomorpo ..	Kamure, 16,850'	18	233	The route lies straight in the direction of a prominent sloping ridge, which appears to bar
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the valley. Immediately below this obstruction and on the near side of it in a small sheltered *nala* is the camping-ground. Good fresh water is always to be found in it, and rich grass and boortsa grow over the whole countryside. No water is to be found on the road which is practically flat. The going would be good were it not spoilt by innumerable concealed holes, which jar laden ponies and sometimes bring them down. A small fresh water lake lies to the north of the camp, distant four miles. Grass is less abundant near its shores.

19	Kamure ..	Mang-tzzaka, 16,806'	12	245	Throughout this stage, which continues along the south side of the plain, the going is good
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and grass plentiful but running water is not met with until camp 5a is reached. This place is just west of a large red hill at the north end of Mangtza Tso. The lakes here are wrongly named in Captain Deasy's map. The Mangtza Cho on the map should be Tsaggar Tso, and the real Mangtza Tso a small lake due south of it, the valley in which it is situated being called Mangtza Longma. A road to Rudok, 3 marches distant, runs through this valley which is much used by the Rudok district men later in the year, when collecting salt from Tsaggar Tso. Salt lies in immense quantities round the shores of this lake, and is removed annually on the backs of yaks and many thousands of sheep to Tankse. At the north-east end of Tsaggar Tso a road runs to Polu.

20	Mang-tzzaka	Chutzar, 16,816'	13	258	Eight miles from the last camp is a small, deep, sheltered <i>nala</i> in which there is running
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water from July to October. At the present camp (Chutzar) also the water is good. Grass is plentiful along the whole route, but at this date (June 17th) was of last year's growth. On the northern side of the Sumjeling plain there is neither grass nor water. The path from Camp 5a leads over a small pass on the northern side of Mangtza Tso, and then continues along the Sumjeling plain. Going good. The whole of the Sumjeling plain at a comparatively recent date was one great lake, as the high watermarks plainly show. The surface of the lake must have been about 700 to 800 feet above the present level of Tsaggar Tso. The grass grows in tufts, 3 or 4 inches high, with a sharp point to each blade; it is nutritious for animals. Boortsa becomes scarcer. Dung, which is only obtainable in small quantities, has to be used for fuel.

ROUTE No. 82—*concl.*

21	Chutzar ..	Tang-Matzo, 16,866'.	..	..
22	Tang-Matzo ..	Kangri, 17,300'	..	..
23	Kangri ..	Camp X, 16,933'	..	..
24	Camp X ..	Camp XI, 16,466'	..	..
25	Camp XI ..	Camp XII, 16,380'.	..	..
26	Camp XII	Loongoon, 17,153'.	..	..
27	Loongoon ..	Churchun, 17,516'.	..	..
28	Churchun ..	Devil's Plain, 16,560'.	..	..
29	Devil's Plain ..	Baba-hatan 15,966'.	..	..
30	Baba-hatan ..	Aksu La, south side, 16,700'.	..	..
31	Aksu La, south side.	Aksu La, north side, 16,250'.	..	..
32	Aksu La north side	Googoot Plain, 15,450'.	..	..
33	Googoot Plain	Atchik Kul, 15,200'.	..	..
34	Atchik Kul ..	Roongo-La, 15,300'.	..	..
35	Roongo La ..	Zoobechie, 12,400'.	..	..
36	Zoobechie ..	Gold-Hole Camp, 12,300'.	..	..
37	Gold Hole Camp	Kalungri, 10,400	..	..
38	Kalungri ..	Polu, 8,300'	..	..

See Colonel C. B.
Bruce's report on
a journey through a
portion of Tibet,
Central Asia and
China proper.

Route No. 83.

FROM LANAK CAMP TO SHEMEN TSO (CAMP 14), *viâ* ARPORT
TSO.

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Lanak La.			
1	Lanak La ..	Bukchang ..	15	15	See Route No. 82, stage 15.
2	Bukchang ..	Tobomorpo ..	18	30	See Route No. 82, stage 16.
3	Tobomorpo ..	Kamure ..	16	48	See Route No. 82, stage 17.
4	Kamure ..	Tsaggar Longma	12	60	See Route No. 82, stage 18.
5	Tsaggar Longma	Chutzar ..	13	73	See Route No. 82, stage 19.
6	Chutzar ..	Pibok ..	13½	86½	See Route No. 82, stage 20.

Three-quarters of a mile from Camp 6a the path passes some hot springs at the mouth of a *nala*. The hottest of these springs registered 105°F. In several of the warm pools rushes grow and fresh water shrimps are found. The water is tasteless and clear. Several of the pools were at this date bubbling, and their borders gave one the impression that at times they were subject to more violent eruptions. The height as given by the aneroid was 17,700 feet. The path from here strikes slightly more to the north so as to miss the steep sides of the ravines between the mountains to the south and has a very gentle rise for 12 miles of the way, crossing a pass of about 18,000 feet in height. Water is found every few miles along the march, the result of the melting snows on the heights to the south. Only last season's grass is found at this time of the year in the ravines and boortsa in small quantities. Old yak dung is more plentiful, though not in great quantities. The going is heavy.

ROUTE No. 83—*contd.*

7	Pibok	..	Arport Tso	..	18½	105	A tiring march, for although the going is good on the whole, yet the broad dry river-
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beds are soft and very trying to the ponies. Along the route there is no vegetation, except a few scanty patches of boortsa. Round the shores of Arport Tso, grass grows in abundance, including a variety not hitherto met with: it consists of fine blades which grow in a ring round the last year's roots.

There are good camping-grounds anywhere around the lake excepting on the northern shore. The water of the lake is fresh. Large quantities of yak dung are available for fuel and a little boortsa. Arport Tso shows few signs of shrinkage, at the most a few feet, and nothing in the surrounding country leads one to suppose that it has ever appreciably exceeded its present area: in fact it is now at a slightly higher level than when visited by Captain Bower in 1893. It is well known amongst both Ladakhis and Tibetans.

8	Arport Tso	..	Lungnak nala (Black surround- ings), south of Arport Tso.	14	119	The route runs south-wards along the western edge of Arport Tso for four
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miles, and leaving its shore at this point, continues in the same direction till it passes through a gap in the mountains which lie dead ahead. Five miles beyond this it turns due east up the main valley which is here about 3 miles in width. Good camping-grounds are to be found everywhere. A small stream runs down the centre of the valley. Grass is fairly good and fuel in the shape of yak dung abundant. The going would be good if it were not for the myriads of rat holes. Antelope and kiang abound, and from July to September large numbers of wild yak visit the neighbourhood.

9	Lungrak nala	Nala, 6 miles east of Lungnak La.	7	126	The road continues due east up the nala for six miles, rising 1,000 feet in that distance,
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then two miles over nearly level country, until the summit of Lungnak La (1,136 feet above Arport Tso) is reached. From here there is a gradual descent for six miles to camp. The going is rough, and on the pass soft and heavy. The soil consists of a mixture of granite and slate, sodden in most places by the melting snow. In July and August the road is only passable with difficulty. Grass of a short close variety grows along the whole route, except at the very summit of the pass. Water is plentiful at the camp, and yak dung in immense quantities, with a small amount of boortsa can be obtained close at hand. The route is quite unknown to the natives, and if used early in the morning when the ground is frozen is a good one. The descent from the pass is easy. About 15 miles south-west lies the small lake of Kurman Tso.

10	Nala 6 miles east of Lungnak La.	Rikar (white hill).	7	133	South-east across a broad plain and over a slight rise almost a natural road is found. The
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camping-ground is on the eastern side of the rise where there is fair grass

ROUTE No. 83—*concl.*

and water and an ample supply of fuel. Boortsa also grows in great abundance. Yak at this date (June 25th) were visible in small numbers in all the ravines.

11	Rikar	Shemen Tso	18	151	After continuing down <i>nala</i> for one mile the road crosses a slight ridge, and turns thence east-north-east along a stony valley for six miles, after which it takes a southerly direction parallel to the main stream for four miles, finally debouching into a large plain which gradually slopes down to Shemen Tso.
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Along the road grass is extremely scarce, though at the camp it is very abundant; it is of the fine description and evidently very nutritious, for many hundreds of wild yak, kiang, and antelope cover the plain. No drinkable water, however, is to be found except at the camp itself where a large pool formed from melting ice affords an ample supply. Apparently this is one of the few spots where there is fresh water, as wolf lairs are plentiful, and duck are very bold in drinking. The lake is intensely bitter, a thick incrustation of salt lying high up the western shore. We found no fish in the lake but their presence is indicated by the number of Brahminy duck we saw on the shores. The mountains to the west are dark in colour, and grass grows in all the *nalas* while those to the east are very light, and appear to be destitute of vegetation.

Route No. 84.

FROM SHEMEN TSO (CAMP 14) TO ANTELOPE PLAIN (CAMP 25), *via*

MEMAR CHHAKA AND GORE TSO.

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stages.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
1	Shemen Tso	Shemen Tso			See Route No. 83 stage 11.
	Shemen Tso	Nurbo, Kiang Plain.	19½	19½	The route lies for six miles due east along

plain bordering Shemen Tso, and then proceeds up an easy *nala* the pass at the head of which is low and easy. From here the road debouches on to a large plain which, though stony and waterless, contains plenty of good grass. At camp 15 several rivulets run down from the hill side, producing a crop of green grass which can be seen for miles. A short distance below the camp they disappear into the ground. Boortsa is plentiful, and there is a fair amount of yak dung for fuel. The ranges on either side are steep, rocky and bare. At the north-east end of the plain the mountains are black, and therefore probably consist of richer soil. They are at this date covered with snow. It is doubtful if water could be obtained in the plain itself, except by digging to a considerable depth.

ROUTE No. 84—contd.

2	Nurbu	..	Kito, Kiang Plain.	11	30½	The road runs east-north-east up a narrow ravine, gradually ascending for 3½ miles
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till it crosses a hollow, from which Kiang plain can be seen; it then passes over another ridge 200 feet above, and descends to a branch valley of Kiang Plain. The going towards the latter end of the march is heavy, and laden ponies sink deep into the quagmire. Water is here abundant, though grass is not very plentiful, while further out into the plain grass grows in great luxuriance, but there is no water. The hills on both sides of the route are rocky and precipitous. The soil is black and yellow in colour. Water is found along the whole route, likewise scanty grass.

3	Kito	..	Camp 17	10	40½	The road taken by us, it is unnecessary to report upon in detail as although we succeeded finally in passing the range of mountains, yet the going is so rough, that it is practically impassable by transport animals. Immense boulders, precipices, and waterfalls block all the passes in this neighbourhood. There appears to be a rather longer but very much better road to the east-south-east which continues along the valley we traversed on the 30th June, and then follows the bed of the stream which turns south-south-east at eight miles from Camp 16, and again east to Aru Tso. This road appears to be easy. Water is available all along it, but grass is scarce.
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From where we debouched, the direction of the route lies due north across the open plain at the north-west end of Memar Chhaka, a salt lake of considerable extent principally fed by streams which pour their contents into its north-western end. At this spot there are pools of fresh water, excellent camping-grounds, and an abundance of good grass and boortsa for fuel. The going usually is very good, but at times, owing to the deep snow it is heavy, and near the lake are some quicksands. No animal life is to be seen at this date with the exception of a few antelope. A fine glacier lies 10 miles off to the south, its mouth being a wall of ice, 100 feet in height. The road to Antelope Plain lies due north from here, and that to Aru Tso due south. The road in both directions appears easy.

4	Camp 17	..	Memar Chhaka	6½	47	From where we debouched, the direction of the route lies due north across the open
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Striking due east from the camp, the road at a distance of one mile from it crosses the river which runs into the north end of Memar Chhaka. The ford is very difficult owing to quicksands which stretch 20 yards on either bank, though the river is only about 30 yards broad and 2½ feet deep. There is a steady rise from the lake to the foot of the hills through heavy sandy soil. The grass here and in the neighbouring ravines is excellent. One mile up the *nala*, on the north side, are great numbers of holes made by gold-diggers, Lhasa men chiefly, who visit the district in August and September. We met two of these men, and they reported the presence of many others in the

5	Memar Chhaka	..	Nala south-west of Gore Tso.	17	64	Striking due east from the camp, the road at a distance of one mile from it crosses
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the river which runs into the north end of Memar Chhaka. The ford is very difficult owing to quicksands which stretch 20 yards on either bank, though the river is only about 30 yards broad and 2½ feet deep. There is a steady rise from the lake to the foot of the hills through heavy sandy soil. The grass here and in the neighbouring ravines is excellent. One mile up the *nala*, on the north side, are great numbers of holes made by gold-diggers, Lhasa men chiefly, who visit the district in August and September. We met two of these men, and they reported the presence of many others in the

ROUTE No. 84—contd.

neighbouring valley, which points to the fact that the soil is rich in the precious metal. Continuing to the top of the *nala*, the road crosses a boggy depression for one mile, which, were the soil less porous, would be the bed of a lake. An easy descent of three miles down a ravine brings one in view of Gore Tso. The natives profess to be ignorant of its name or of its very existence. I have given it the name of Gore Tso, after Colonel St. G. Gore, Surveyor-General. When we visited it was frozen over. After leaving the last camp the country assumes an entirely different character, the hills being undulating and rounded at the summits. All the *nalas* running east and west are easy, rich in grass and fuel, and contain small streams. The name of the gold mine is Pallo Letok. The water of Gore Tso is undrinkable and no grass grows within half a mile of its shores.

6	Nala south-west of Gore Tso.	Camp 21	..	15	79	The road lies round the south-east end of Gore Tso, continuing east and east-south-
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east up a long *nala* with an easy ascent, though it is sandy and rather heavy. In this valley there is a little water and grass in abundance. At the head of the *nala* turning east, we crossed another valley running north and south. Passing over the next ridge we came into a small *nala* where we pitched camp; water was plentiful, and fuel fair, but very little grass. There is a more plentiful supply of grass two miles further down the valley to the south. The soil of the surrounding country is composed of slate, and there appears to be no game.

7	Camp 21	..	Camp 22	..	13	92	A slight rise northwards over a ridge and a gradual descent brought us into a plain stretch-
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ing to the north-east as far as the eye could see. This plain is bounded on the north for about 30 miles by a jagged snow-capped range (Deasy Group), and on the south by a line of rugged peaks and undulating hills. In the *nalas* on the sides of the ridge, is a series of gold diggings, stretching altogether for seven or eight miles. No men were on them when we passed, and whether they will be worked again or not is uncertain. The newness of the dams and channels used in washing the soil prove that mining operations have been carried on until quite recently.

This plain is almost entirely bare of vegetation except on the southern side, on the lower slopes of the hill, and in the *nalas*, where grass grows freely, and water is plentiful. On the northern and western sides, grass grows in small quantities in some of the ravines. Streams run from the *nilus* for a short distance, and then disappear into the ground. At this camp, water, grass of both varieties, boortsa, and "gobars" are all plentiful, and other good camping-grounds are available in the neighbourhood. The going is firm and good. Another lake lies to the east of Camp 22, about the size of Gore Tso, but as there is no outflow for the water it is probably undrinkable.

8	Camp 22	..	Camp 23	..	14	106	A steady tramp for eight miles took us across a stony plain intersected by two small river s.
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ROUTE No. 84—*concl'd.*

On this plain there is neither vegetation nor fuel, and at the far side of it there rise two barren ridges, the ascent and descent of which are easy. We then entered the main *nali* which runs down from the snows. Here we found water and a little grass and boortsa on the eastern side, but only in sufficient quantities for a very small party.

9	Camp 23	..	Antelope Plain	16	122
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We turned up a side *nali* to the north, and after a sharp ascent and descent, found ourselves on another plain. Continuing north for three miles, individual members of the party reconnoitred several *nalis*, but they were all impassable. Finally a narrow ravine, rough, but with a fairly gradual rise was discovered, which led into a desolate region of hills. Ascending a mountain about 20,000 feet in height which lay to the east of the pass we saw another defile a mile ahead running due west. Crossing this we marched down a long valley into Antelope Plain, and four miles from camp passed a great glacier.

The going all along this stage is bad; at the commencement it is rough and steep, and beyond the second pass the ground is saturated with water, making the going so heavy that ponies sink to their hocks in the mire. The third pass is under perpetual snow for a distance of three miles. The final valley leading into this plain is broad and stony, with a fordable stream about 20 feet in width, which has continually to be crossed, winding down the centre of it. The 16 miles take 13 hours to accomplish. Water is plentiful, but very little grass or boortsa is to be found. The camping-ground is in the open plain. Enormous snowfields and glaciers make this range impassable except at the eastern end. No grass was found in the mountain *nalis*, neither were any animals or their tracks seen. The only easy pass over Deasy Group is situated one march further to the east, but even there grass is scarce. Water is procurable everywhere in the plain, except at its eastern end.

Route No. 85.

FROM ARPORT TSO TO ANTELOPE PLAIN (CAMP 24), THE
NORTHERN ROUTE *viâ* YESHIL KUL.

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Arport Tso (camp 10).			See Route No. 83, stage 7.

ROUTE No. 85—*contd.*

1	Arport Tso ..	Camp 11-a ..	7	7	The road skirts the edge of Arport Tso as far as a point opposite the centre of the northern shore. The going is indifferent, being over loose stones. Grass is fairly abundant, and water can be obtained from the lake. At the northern end of Arport Tso, the water is slightly pregnated with soda and salt, though quite drinkable. Yak dung for fuel is very plentiful.
2	Camp 11-a ..	Camp 12-a ..	9	16	Over a very easy pass, and then east-north-east down a valley, passing a small dried up lake on the right. Water can be obtained from a small stream close to the camp. Boortsa and yak dung are plentiful, and grass grows in abundance.
3	Camp 12-a ..	Camp 13-a ..	6½	22½	The route lies east-north-east down the valley along the right bank of a stream about 3 feet deep, which rises on the eastern shore of a small dried up lake passed on the last stage. This river is the overflow from Arport Tso, and escapes from it by an underground passage. Grass, water, and fuel are found in great quantities at the camping-ground.
4	Camp 13-a ..	Camp 14-a ..	7	29½	The road runs gently down the valley until the camp is reached. Water is obtained from a small stream close to hand. None is procurable on the road. Grass is scarce, but fuel plentiful.
5	Camp 14-a ..	Camp 15-a ..	8½	38	A continuation of the same route, passing no water on the road. We camped by a small stream, where the grass and boortsa were good and plentiful.
6	Camp 15-a ..	Camp 16-a ..	9	47	Down the valley to a spot about 7 miles south of Yeshil Kul where water may be obtained from a small stream running north. Grass is excellent and fuel plentiful.
7	Camp 16-a ..	Camp 27 ..	15	62	North-east across a stony <i>nal'</i> , to a narrow ravine permanently filled with snow. The going is good, and the road passes by the side of a small pool which contains water that is only just drinkable. At the camp the grass is rich and plentiful, but the water obtainable from the <i>nal'</i> is most indifferent. Fresh water can be easily obtained by digging. Fuel good.

ROUTE No. 85—*concl'd.*

8	Camp 27	..	Camp 28-a	..	8	70	East-north-east to a spot four miles west of Pul Tso, where grass and fuel are plentiful, but water only obtainable by digging 2½ feet.
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9	Camp 28-a	..	Camp 29-a	..	8	78	Along the northern shore of Pul Tso, which is a lake so impregnated with soda and salt as to be quite undrinkable for men, though it appears to have no ill effects on animals. The road crosses the lake by a narrow tongue of land which stretches from shore to shore. The camping-ground is near the water's edge under shelter of a cliff. No drinkable water is obtainable even by digging. Grass and fuel are very good, and the going firm and easy.
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10	Camp 29-a	..	Camp 30-a	..	12	90	For the first nine miles the road passes across a stony plain where the going is difficult though fairly level. The path then rises, crosses an easy pass, and descends to the stream which runs out of Antelope Plain Lake. No water is passed on the road, but that found at Camp 30-a is excellent. Grass and boortsa plentiful.
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11	Camp 30-a	..	Antelope Plain (camp 24).	..	13	103	The first four miles across a stony plain, where the going is impeded by the number of streams that have to be crossed. They are all easily fordable. Towards the end of the march, a gradual rise takes place. Water and grass are found everywhere and just before reaching camp a rapid stream 2 feet deep is crossed. See Route 84.
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Route No. 86.

FROM YESHIL KUL (CAMP 27) TO ANTELOPE PLAIN BY A SOUTHERN ROUTE.

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter-mediate.	Total.	
		Yeshil Kul (Camp 27)			See Route No. 85, stage 7.

ROUTE No. 86—*contd.*

1	Camp 17	..	Camp 26	..	7	7	Due east along the northern slopes of a low ridge, camping in a small ravine, which cuts the ridge in two. Water only to be found by digging. Grass and "gobars" plentiful.
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2	Camp 26	..	Camp 25	..	2	9	A steady rise in an east-south-east direction over a pass where the going is good; afterwards descending to and then skirting the southern shore of Pul Tso. The ground is much undermined by rat runs which make the going bad. After leaving Pul Tso the path enters a valley with gently sloping sides. Good running water can be obtained at the camping-ground from the stream which flows out of the Antelope Plain Lake. Grass and boortsa very plentiful.
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3	Camp 25	..	Camp 24 (Antelope Plain.)	..	16	25	The road continues along the left bank of the stream, as far as Antelope Plain. From there the path rises steadily crossing several small fordable streams, all of which run northwards, until Camp 24 is reached.
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See Route 85, stage 11.

Route No. 87.

FROM YESHIL KUL (CAMP 27) TO ANTELOPE PLAIN (CAMP 37) *via*
THE SOUTHERN SPURS OF THE KUEN LUN.

Authorty and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.		
	From	To	Inter- me- diate.	Total.			
		Yeshil Kul (Camp 27.)	..	..	See Route No. 85, stage 7.
1	Camp 27	..	Camp 28	..	8	8	Across the plain for the first five miles, the country on both sides of the road being

ROUTE No. 87—*contd.*

covered with grass. Turning north-east the route crosses a low easy pass, and continues down the valley. Grass and fuel are plentiful, and water is obtainable by digging. Yeshil Kul lies 12 miles due west from here.

2	Camp 28 ..	Camp 29 ..	12	20	The road leads east-north-east to an easy gap in a range of hills $4\frac{1}{2}$ miles from camp.
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From this point the path turns into the valley, in which a large stream flowing from the Kuen Lun joins the Yeshil Kul. Grass and fuel are plentiful for 15 miles to the west, but there is no vegetation and in fact nothing but sand is to be seen for a distance of 15 miles to the south and 20 to the east. Water is always obtainable from the river.

3	Camp 29 ..	Camp 30 ..	12	32	The going is through heavy sand the whole way. The path crosses a small hill and then
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descends to the plain, after which there is a slight rise to camp. Here water is obtained from the stream, and fuel is plentiful.

4	Camp 30 ..	Camp 31 ..	16	48	Striking due east, the road slowly ascends for five miles, then turns north-east and
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crosses a pass over a high range. This pass is easy until just short of the summit when one furlong of the road is decidedly steep. Then down the *nala* to camp. Many streams are crossed on the way, all of which are fordable. At the camp there is water, but very little fuel, and no grass.

5	Camp 31 ..	Camp 32 ..	15	63	The road runs along the southern bank of the stream for the entire distance. For the first
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six miles it is in a narrow valley, and then debouches into an open, stony plain. The hills are black and white in colour. Water is obtained from the stream which rises in the Kuen Lun and flows east. Fuel abounds, but there is no grass.

6	Camp 32 ..	Camp 33 ..	13	76	The road crosses a stony plain along the bank of the stream which eventually disappears
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into the ground, though the dry bed is traceable as far as a large lake 20 miles distant. The hills on the east and south-east gradually decrease in height as camp is approached. Fuel is plentiful on the road, but there is no grass.

7	Camp 33 ..	Camp 34 ..	8	84	The road mounts gradually for the first 5 miles and then descends to the shore of a lake,
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ROUTE No. 87—*concl'd.*

the length of which from east to west is about 8 miles, and its breadth 5. The water is drinkable though brackish. It supports a large amount of bird life, in the shape of duck, geese, cranes, etc., and is infested with mosquitoes. A stream from the south-west coming from a mountain spur, supplies it with water. The overflow runs north-east and joins a big stream. Grass at the end of July is green and plentiful. Fuel in abundance.

8	Camp 34 ..	Camp 35 ..	12	93	The road slowly ascends the <i>nala</i> in a south-south-west direction passing on the way

patches of grass. Water is obtainable from the stream. Fuel fairly plentiful. Grass grows luxuriantly three miles north-east of camp.

9	Camp 35 ..	Camp 36 ..	13	112	Undulating ground for the first ten miles, crossing many ravines. The going is easy and

water obtainable by digging. Grass and fuel everywhere.

10	Camp 36 ..	Camp 37 ..	12	124	Gradual and easy ascent for nine miles, then down a small <i>nala</i> with low hills to the

north and south. Grass is found everywhere. Fuel is plentiful, but water only obtainable by digging. See Route No. 85, stage 11.

Route No. 88.

FROM ANTELOPE PLAIN (CAMP 24) TO LAKE MARKHAM (CAMP 45-b).

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		(Antelope Plain (Camp 24.)	..	..	See Route No. 84, stage 9.
1	Antelope Plain (Camp 24.)	Camp 37 ..	7	7	After marching seven miles eastwards over an easy pass we reached a grassy <i>nala</i> . Water

ROUTE No. 88—*contd.*

in the immediate vicinity of the road is only obtained by digging, until a point $1\frac{1}{2}$ miles from No. 37 Camp is reached, where a good stream crosses the road.

Boortsa is plentiful and we saw many thousands of female antelope and young grazing on all the plains around. Grass is plentiful on the hill slopes in every direction. Going firm and easy.

2	Camp 37	..	Camp 38 (fresh water lake).	13	20	Direction north-east along a rolling plain intersected by dry water-courses at short
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intervals. The going, however, is good and firm, and boortsa grows all along the road. Water is only met with once, at a spring seven miles from Camp 37. Grass grows in small patches everywhere, but at the camp it is very plentiful, long, and rich. One mile east is a fresh water lake about two miles in circumference, fed by underground streams which flow from the hills to the south. Antelope abound.

The plain in which the lake is situated is bounded on the north and south by high and rocky hills, on the west by the ridge which separates it from Antelope Plain, and on the east by rolling ground. Unless a spring is met with accidentally, an uncommon occurrence, water can as a rule only be obtained by digging in the dry river-beds. Here it is usually within 2 or 3 feet of the surface. It is generally muddy but a little powdered alum dropped into it will quickly precipitate the earth or vegetable matter.

3	Camp 38	..	Camp 39	..	10	30	The route lies east north-east over a rolling plain and crosses the broad bed of a river
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which runs northwards, with a narrow stream near its left bank. The dry bed is about three miles in width, and the going on it is rather heavy. With this exception the going along the whole route is firm and good, with no gradients worthy of mention. Grass, except in the actual river bed, is rich and plentiful, growing to a height of 6 inches. Boortsa is to be found everywhere, and of a good quality for fuel. The plain to the north is undulating, and water is a little more plentiful, but no grass grows on it except within 5 or 6 miles of camp.

4	Camp 39	..	Camp 40	..	2	32	Round the foot of the hill, to a grassy spot. Water is found in a small stream $1\frac{1}{2}$ miles
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north-east of the camp. It starts in a spring, but after trickling for 300 yards disappears into the ground.

5	Camp 40	..	Camp 41	..	5	37	The road starts across a plain, and after a steep climb over a pass, descends by a narrow
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nala into a dry river-bed. Grass is plentiful on the plain, but none grows

ROUTE No. 88—*contd.*

on the ridge. At the camp grass is fair, fuel good, and water, which trickles from the mountain side, can easily be collected by digging holes and channels.

6	Camp 41	..	Camp 42	..	7	44	The natural road lies straight down the valley, where the going is firm and good, and
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where water, bootsa, and grass are plentiful. At the camp any quantity of fuel and fodder is obtainable, but as not a drop of drinking water can be found, it is unsuitable for a camping-ground. Three miles to the south there is a running stream, but it is doubtful if anywhere in the range itself there is any water at all. The plain to the north, which is in reality a continuation of Antelope Plain, is rich in grass and water on account of the great snow and rainfall.

7	Camp 42	..	Camp 43 (west of Lake Markham.)	10	54	Caravans pass round by the low ground in the valley which forms a long but easy route for
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tired animals, as the going is firm and fairly level. Water, grass, and fuel are plentiful everywhere. The country being undulating and intersected by large plains, the movement of laden animals in any direction is very easy, and as fuel and grass are obtainable everywhere, and water can be found with a little trouble in almost every square mile the country is very favourable for transport.

8	Camp 43	..	Camp 44-a (south of Lake Markham.)	9	63	The route lies throughout this stage along the southern shore of Lake Markham, cross-
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ing the mouths of a large fordable stream which flows from the south-west. The greatest depth of the stream near the lake is about 2 feet 6 inches, width 50 feet, and rapidity of current 2 miles an hour. Four miles from the lake this river passes through the low hills by a narrow channel which is unfordable. It is possible, however, to move along both banks and ford it above the ravine. The going throughout this march is firm and good, while grass, fuel, and water are plentiful. The water of Lake Markham at its eastern end is undrinkable, being strongly impregnated with soda and salt.

9	Camp 44-a	..	Camp 44-b (south of Lake Markham.)	8½	71½	The road still continues along the southern shore of Lake Markham where the going is good
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and firm. A few small streams are passed at the commencement of the march, after which no fresh water is met with, though it can be obtained 2½ feet below the surface by digging. Bootsra is scarcer, but grass is still good. A large number of brahminy duck breed on this lake.

10	Camp 44-b	..	Camp 45 (east of Lake Markham.)	9½	81	A firm and hard road across an almost dry stream leads to Camp 45. Good water is
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ROUTE No. 88—*concl'd.*

obtainable in its bed by digging, but in the centre of the main valley in which this camp is situated there are several running streams. Grass and fuel are good and plentiful for 10 miles to the north. The difficulty of finding water, however, is considerable. The country north-east consists of rolling hills, without grass or water as far as the eye can see. See Route No. 94.

Route No. 89.

FROM LAKE MARKHAM (CAMP 45) TO HUPING TSO (CAMP 57).

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.				DISTANCES.		REMARKS.
	From		To		Inter- me- diate.	Total.	
			Camp 45	..	..	..	See Route No. 88, stage 10.
1	Camp 45	..	Camp 46	..	10	10	A steady pull up hill the whole distance reaching the highest point just short of camp.
<p>The roadway runs along the bed of an open valley commanded by a high mountain 18,450 feet high on the north. From this hill a fine view can be obtained north and east for 120 miles. The country to the north-east and east is practically one large desert, destitute of grass and fresh water the flatness only broken by rocks and small ridges. A few salt lakes are dotted about. The village of Barkhalu which appears in many maps about Long. 85° does not exist.</p>							
2	Camp 46	..	Camp 47	..	13	23	The route lies across an open plain for eight miles, after which it rises gradually till it reaches a small <i>nala</i> which it follows and crossing a low easy pass, continues down a ravine to the camping-ground. Numerous small streams run from the range which is crossed <i>en route</i> . There is no grass on the southern slopes of this ridge nor within five miles of the camp. The going is good, and at the camp itself boortsa is plentiful.
3	Camp 47	..	Camp 48	..	12	35	After crossing a broad flat valley the road ascends a long ridge at an easy gradient for 4 1/2

ROUTE No. 89—*contd.*

miles to a low pass which it crosses and then winds down a shingly *na'la*. Neither grass nor water are to be found on the road. The whole country is barren except for some large patches of boortsa. At the camp water is only obtainable by digging, and even then in but small quantities. Grass is however abundant, and in fact grows in great profusion all over the country south of this range. The going is good and firm, but stony. There are no obstacles to impede the free movement of laden animals in any direction.

4	Camp 48	..	Camp 49	..	12	47	Passing down a sloping plain for 4 miles, the route traverses gently rolling downs covered
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with grass, and every now and again crosses small *nalas*, in all of which flow perennial streams. At the camping-ground good water can be obtained by digging. A coarse variety of grass is plentiful and the fuel fair. The going during this march is good. Three and a half miles due west of the camp are the remains of a large Champa settlement. Its occupants were in all probability prospecting for gold as the remains of a wooden basin and several pounding stones were found.

5	Camp 49	..	Camp 50	..	6	53	This march lies up an open valley, and then crossing a low ridge, leads straight to the
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camping ground which is situated on the edge of a fresh water pond, surrounded on all sides by grass in great profusion. Yak dung fuel is most plentiful. The going on the road is good and trickling streams are met with in most of the ravines along the foot of the hills ensuring an ample supply of water. Three deserted camps in a sheltered watercourse were seen close by.

6	Camp 50	..	Camp 51	..	10	63	The road takes a westerly direction traversing a rich undulating country, covered with
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many varieties of long grass. During the latter part of the march many small streams were passed and at the camp itself two small pools of fresh water and a spring. As most of the ridges run north and south, the march is a trying one for the baggage animals, but as the ground between them is fairly level, a caravan moving parallel to them would encounter no difficulties. Yak dung is plentiful, and for the purpose of cooking supersedes boortsa, which is only found here in small quantities. The ridge to the west is impassable by laden animals.

7	Camp 51	..	Camp 52	..	14	77	After a gradual descent for 6 miles down a grassy <i>na'la</i> , in the centre of which runs
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a small stream, the road skirts an open plain. Fresh water is scarce and can only be obtained close to the mountain, though grass grows freely everywhere; boortsa and "gobars" are plentiful. The going is good, though in

ROUTE No. 89—*contd.*

places the ground is undermined by rat runs. Yak, kiang, antelope, hares, and chikor were seen during the march.

8	Camp 52	..	Camp 53	..	9	86	An easy march south-wards along the foot of the hills and over a low spur brought us
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into an open valley. Many streams flow eastwards and empty themselves into two lakes to the east. The going is firm and easy, with good grass and fuel everywhere. The mountain range to the west of the line of march is steep and rough.

The same animals were met with as on yesterday's march, and in addition marmots, foxes, and Tibetan sand-grouse. Old gold-diggings, one mile west of the last camp, were seen in the bed of a ravine. These works extend for one mile, but appear not to have been occupied for the past two or three years, though the dams and water runs are very distinct. The country generally is easy for the movement of transport animals.

9	Camp 53	..	Camp 54	..	6	92	Up an easy gradient and along the banks of a fresh water stream to camp. Here water,
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fuel, and grass are abundant. The going everywhere in this valley is easy and firm.

10	Camp 54	..	Camp 55	..	11	103	The road is level and good, winding round the foot of the hills. Water, fuel and grass
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are plentiful. The country to the south for 50 miles consists of a large plain on which are 5 salt lakes. There is no fresh water far from the hills and grass is scanty. Salt-pans and brine pits lie in all directions.

11	Camp 55	..	Camp 56	..	6	109	The road crosses two ridges by sharp gradients, and once over them descends into
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a well watered valley where many ancient nomad encampments are still visible. Water, grass, and fuel abundant and the going firm.

12	Camp 56	..	Camp 57 (Hup-ing Tso).	9	118	Taking a northerly direction for a short distance and then turning west over a
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gap in the spur, and again descending, the road traverses the old plain for 7 miles, till camp is reached on the banks of Huping Tso, which is a fresh water lake 36 square miles in extent. It is almost divided in two by a rocky peninsula. Fresh water shrimps abound in the waters, but we saw no fish. Grass grows in great luxuriance, and is of the fine variety. Deserted nomad camping grounds are met with in many of the ravines. Going firm and good in all directions. A very easy rise south-west of

ROUTE No. 89—*concl'd.*

Camp 57 leads into a barren plain of considerable extent. The hills to the east and south are steep and rocky, but easy for a man to climb. Wild animals at this date are scarce. The droppings of wild yak cover the ground while the *nalas* are full of their skulls and bones. See route, No. 93, stage 4.

Route No. 90.

FROM LEH TO NOH *viâ* POBRANG AND NIAGZÜ.

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Leh ..	..	..	See Route No. 2, stage 157.
1-8	Leh ..	Chorkangma ..	91	91	Eight marches. See Route No. 82, stages 1 to 8.
9	Chorkangma ..	Kieu Loomba	16	107	A steady pull up hill for 4 miles to the summit of the Marsi Mik La, and a descent down the eastern side for one mile. The road then turns sharply to the south-east, and ascends a steep bank 250 feet in height, which, though quite accessible by a goat terek, is very trying for laden animals. From the summit of this bank the road descends gradually for one mile, and then mounting again for the same distance crosses another pass. The name of this latter pass is Kieu La and its altitude 18,600 feet. From the Kieu La, the path steadily descends an open valley called Kieu Loomba. The going for the first two miles from Kieu La is very rough, but after this as far as Camp 93 the road is good. Five miles before reaching Camp 93 is a running stream but no grass or fuel. At the camping-ground itself water, grass, and fuel are available.
10	Kieu Loomba	Camp 92 ..	13	120	The route continues down Kieu Loomba. The descent is easy, but the going is bad, for loose stones cover the bed of the valley. Although there is no grass or water on the road, both are excellent at the camp, and the bed of the valley

ROUTE No. 90—*contd.*

is covered by a thick growth of scrub jungle which affords unlimited quantities of fuel. Just before reaching the camping ground, the road turns sharply to the north-east. A flock of 1,000 transport sheep were passed on the road.

11	Camp 92	..	Camp 91	..	13	133	Continuing north-east up a broad and stony barren valley the path turns to the east at the

7th mile, and traversing the Tsa Kiak Loomba for six miles, reaches Camp 91. The road is a trying one for man and beast, the sheep track being hardly visible. Grass closely resembling moss grows in profusion on the banks of the stream which flows from a spring near the camp. Earlier in the year this valley must afford rich pasturage to the flocks of sheep and herds of yak which pass through it, but at this date the grass was all dead, and the ponies found great difficulty in obtaining a feed. The tame yak fared better, as they licked up the dead grass with their rough tongues. Gobars are plentiful. Earlier in the year water runs from all the side ravines. Twenty tame yak were found grazing in a *nala* close to the camp.

12	Camp 91	..	Camp 90	..	8	141	Five miles up the valley in the same direction are two parallel ridges called the Demjor La

(17,570 feet) lying one mile apart. The gradient up to them is stiff, but passable for laden animals. After crossing them the road runs south-east, down a narrow ravine, at the foot of which is a valley, and beyond it the camping ground. At this camp, gobars, water, and grass of the short variety are plentiful. The road is rough and very tiring for laden animals. A herd of goats, about 1,000 in number, were passed on the road.

13	Camp 90	..	Camp 89	..	14	155	The path down this valley from Camp 88 has been made by sheep and goats; it is rough and

covered with stones. At the date of our march there was neither grass nor water on the road, but fuel in the form of dry sticks was plentiful. At Sa Lam the ascent and descent are stiff but not too bad for animals reasonably laden. At Camp 89 we found a little withered grass, water was plentiful, and there was any quantity of yak dung.

14	Camp 89	..	Tobo Ruberg (Camp 88).	8	163	The first half of the march entailed a steep climb over the Dingo La, and the second half an

equally steep descent to the camp. There is no grass or water on the road, in fact the only place it is obtainable in the vicinity is a ravine half a mile west of the camping ground. When we visited the camp all the grass was dead, but there was an abundance of fuel.

15	Tobo Ruberg	..	Pal	..	11	174	A bad road, running sometimes in and at others alongside of the <i>nala</i> , with a steep descent the

ROUTE No. 90—*concl'd.*

whole way : it consists of soft sand and loose stones, slightly improved in the middle by a narrow goat path. Five miles from camp it leaves the small valley which it had traversed up to this point, and turning sharply to the east, after 300 yards enters the main valley in a direction parallel to its old course. From here it continues down the *nala* until Pal is reached. There is a running stream half-way between the two camps, but no grass. At Pal itself there is grass, water, and fuel. A permanent guard of three men is stationed here.

16	Pal	..	Camp 86	..	10	184	} See Route No. 81, stages 17 to 19.
17	Camp 86	..	Camp 85	..	9	193	
18	Camp 85	..	Noh	..	5	198	

Route No. 91.

FROM NOH TO CHAMCHU.

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Noh	..	..	See Route No. 81, stage 19.
1	Noh	Nianju	..	4	The road in the form of a well worn sheep track continues up the right bank of the Kheo river.

The going is variable, sometimes over rough stones, and at others through bog. At one place the river widens to such an extent as almost to be called a 'abe. Bushes and trees, the latter from 10 to 20 feet in height, grow in profusion along the bed of the valley. Grass is abundant and good. The river is fordable in places, and the bottom, generally speaking, firm. The mountains on either side are precipitous and impassable. Two miles from Noh, a road is said to run northwards and then westwards to Nyak Tso, though we did not see it; it is reported to be rough. The river divides at places into many channels forcing the road close under the cliff.

2	Nianju	..	Tandep	..	9	13	The path which is still no more than a goat track, continues up the right bank of the river. The
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ROUTE No. 91—*contd.*

going is firm and good, and water and grass are plentiful along it, while fuel is fairly abundant. Both banks of the river are boggy, and at some periods of the year must form a deep marsh. It becomes broader and shallower and its current more rapid as the source is neared. It is fordable anywhere, the bottom being firm and composed of shingle. The grass at the camp is excellent. From Camp Tandep a road runs over the hills to Rudok, which appears rough and steep. See. Routes 79 and 81. A guard is permanently stationed here. Forty yak, 20 ponies, and a herd of goats were seen grazing close at hand.

3	Tandep	..	Camp 82	..	13	26	The road still continues up the right bank of the Kheo river along the sheep track on good going. The river is here 100 feet broad, 3 feet deep, and has a current of 2½ miles an hour. The bed is muddy and treacherous at places, and at others firm and sound. Grass on the road is fair, and fuel plentiful. Many small tributaries join the Kheo along the march, most of which rise from the plain close to the foot of the mountains to the north.

4	Camp 82	..	Shankar Shah	7	33	The river continues in the same direction, and the road runs along its right bank. Going good. Grass at first good, but towards the end of the march the supply fails. Across the plain to the north of the camp can be seen the remains of a once substantial house, now in ruins. Sheep pens lie dotted about the valley.

5	Shankar Shah	Kokche	..	4	37	At two miles from camp the road leaves the Kheo river which can be seen coming out of a valley to the east. This river is reported to rise about 20 miles away. Grass appears to be plentiful along its banks for the entire distance. After leaving the river grass, fuel, and water fail, and none of them are found at Camp 80. Going good.

6	Kokche	..	Dyat, south of Tai Tso.	20	57	The going now becomes bad, <i>nala</i> , and stony beds breaking up the flatness of the valley, and at certain spots the ground is very heavy and sandy. There is no grass or water on the road, but at the camp water from the lake, gobars, and the coarse variety of grass are plentiful. The water of Tai Tso is in some places fresh, and in others salt. The lake is surrounded by banks of white sand containing many ammonites and fresh water molluscs. Immense numbers of geese and duck breed on the shores. Dr. Sven Hedin and Captain Deasy passed by these lakes, but the natives scarcely appear to remember them. The mountain range to the south is impassable.

7	Dyat	..	Khamba Changis, east of Tai Tso.	6	63	A gentle ascent the whole way. Going rough and stony. Now water at the camp or on the road.

ROUTE No. 91—*contd.*

Grass and fuel scarce. The plain much broken up by dry river-beds, with banks precipitous at places.

8	Khamba Chan- gis.	Jai Tonghok ..	16	79	The going during this march is on the whole good though in places heavy. The dry bed
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of a lake is crossed on the way. Grass is fairly plentiful everywhere, but there is no water between the two camps. The valley is level with the exception of a ridge two miles from Camp 77. The sides of this ridge have a gentle slope, the pass being about 400 feet above the bed of the valley. At Jai Tonghok there are many fresh water springs, the streams from which flow a few hundred yards and then disappear into the ground. There were signs of nomad encampments.

9	Jai Tonghok ..	Tomgo (Camp 76).	10	89	Two dry mud pans are crossed soon after leaving Jai Tonghok. Towards the end of the
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march there is a considera' le rise up to a pass, but the gradient is easy and from there the ground slopes gradually to Camp 76. There is no water to be found either on the road or at the camp. Grass and fuel fair.

10	Tomgo ..	Chibur ..	13	102	The road steadily des- cends to a great dry mud pan which lies at a distance of 4 miles
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from the starting point. Grass is very scarce along the whole route, and there is no water, but boortsa is plentiful. The direction of the march is at first south-south-east turning afterwards to south. Going good. Half-way between Tomgo and Chibur a road, which is said to be good, runs eastward over an easy pass. At Chibur a small spring rises in the centre of the valley, and grass and fuel there are excellent.

11	Chibur ..	Fugu ..	11	113	The road lies for some distance along the bed of a <i>nala</i> , on each side of which are rug-
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ged precipices broken by steep ravines full of loose rocks. The path itself is rough and stony, but after leaving the *nala* it improves, and crossing two easy passes, leads straight over a high plateau into camp. Little grass is procurable on the road, but it is fairly plentiful at Fugu. Fuel is extremely scarce there, and water can only be obtained from a spring $\frac{3}{4}$ of a mile to the east. According to native reports there is no water within a march east or west.

12	Fugu ..	Chhabub ..	6	119	Continuing to the head of the valley, the road crosses a pass the slopes of which are fairly
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easy. The camp is at the only place where there is water, and also fair quantities of fuel and grass. The water bubbles from a small spring. Moss grows in profusion, and the dead portions form excellent fuel.

ROUTE No. 91—*concl'd.*

13	Ohhabub ..	Chamchu ..	12	131
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A gradual drop the whole way until the camp is reached. The going is very bad, along the bed of the ravine and over large loose stones. There is no water along the road. Grass is scarce, but fuel in the form of a prickly shrub is very good. The camping-ground is opposite and close to the mouth of the ravine. At Chamchu is a 4-acre fresh water pond. There is very little grass here and no fuel. A permanent guard, consisting of three tents and a dozen people with 1,000 sheep and 20 yak, is stationed here. From Chamchu an open and perfectly level valley runs westwards. It is from 3 to 4 miles wide and the going on it good. The natives report that grass and water are obtainable there, and that it leads straight to Rudok. A few miles to the south-west lie the rich gold fields of Thok Jalung, where 500 men are always at work. See Route No. 80, stage 7. Beyond them lies the village and lamasery of Ghur, where the Zung of the district resides. Past Ghur runs the road to Lhasa. Fifteen thousand sheep and goats are said to pass this camp yearly, moving eastwards to the grazing-ground. See Route No. 81, stage 27.

Route No. 92.

FROM CHAMCHU TO ARU TSO.

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate	Total.	
		Chamchu ..	..	..	See Route No. 91, stage 13 and Route No. 81, stage 27.
1	Chamchu ..	Bum Tso ..	1	15	The road runs due east, gently rising for the first 7 miles, then as gently descending for the next 8. The last three miles are along the northern shores of Bum Tso. The going is on the whole good. Grass is scarce both on the road and at the camp. Fuel can be obtained in unlimited quantities from a bushy shrub, which grows in abundance east of the lake. From this camp an easy road runs south-east though where to we were unable to ascertain. The water in Bum Tso is fresh. The mountains to the north are barren and steep.
2	Bum Tso ..	Camp 70 ..	12	27	After travelling for 2 miles, a broad but fordable fresh-water stream with firm banks

ROUTE No. 92—*contd.*

and bottom is met. The going along these 2 miles is stony and rough, but after reaching the river, the path lies along a sheep track on its left bank, and the going becomes excellent. Grass and fuel are plentiful. The mountains to the north continue to be barren and stony. Those to the south are less craggy, and fairly well-clothed in vegetation.

3	Camp 70	..	Gomang or Nila Tota.	11	38	The path continues along the left bank of the stream for 4 miles where there is a 10-
---	---------	----	----------------------	----	----	---

acre pond of fresh water. A stream 6 inches deep and 40 feet broad, with a current of 1 mile an hour flows out of it. The grass both along the banks and in the bed of the river is excellent, but in the plain and on the hillside is very scarce. Fuel is only found in small quantities, but there is sufficient for all practical purposes. The going is very good. For seven miles after passing the pond the country changes, becoming waterless, stony and barren. A road runs north and south across the valley. Deserted nomad encampments are very numerous, but appear not to have been occupied for the last two years. At the camp water, grass, and fuel are found in plenty.

4	Gomang	..	Camp 68	..	5	43	Striking north-east the valley, though its bed continues to be flat, becomes gradually narrower. The grass is good, the water very plentiful, and the fuel fair. The range to the south is high and steep, good grass growing in all the ravines. The going throughout the stage is good.
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5	Camp 68	..	Chhardo Mirdo	5	48	Similar to the last march.
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6	Chhardo Mirdo		Nila Rakchung	7	55	The road passes up a narrow ravine and over a small pass, the ascent to which is steep and sandy. The descent is easy. Water, grass, and fuel are found at the camping ground. The hills on either side are barren.
---	---------------	--	---------------	---	----	---

8	Nila Rakchung		Rungmar Thok	7	62	Nearly due north along a stony, waterless plain, though numerous streams run from the ravines on the east and west. Grass is good everywhere and particularly so close to the foot of the hills. Fuel is scarce in the plain itself. The going is good, though in places sandy.
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9	Rungmar Thok		Lungo Gyachamuk.	9	71	The track runs due north for 3 miles, and then turns slightly to the west crossing a very low pass and descending to a fresh-water lake with many springs in its vicinity. The path after running alongside the lake, a short distance, takes
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ROUTE No. 92—*concl'd.*

a north-east direction up a large and open valley. The soil along this stage is sandy and the going heavy in consequence. Grass, water, and fuel are abundant. The mountains are steep and high, and, except in patches barren. Many old nomad encampments were seen in the valley.

10	Lungo Gyachamuk.	Abar	..	11	82	The path runs almost due east, and 6 miles from the last camp crosses an easy pass.
----	------------------	------	----	----	----	---

Grass and water are both plentiful on the road, but fuel is scarce. At the camping ground all three are obtainable. The going along this march is firm and good. At Abar a herd of 1,500 goats were found grazing, also a family of nomads living in tents.

11	Abar	..	Camp 62 (west shore of Aru Tso).	7	89	There are two exits about 4 miles apart through the Aru Tso mountains. Both are
----	------	----	----------------------------------	---	----	---

narrow ravines with precipitous sides. The path is along a river bed, which has to be continually crossed. There defiles are each about 4 miles in length. The going along them is trying for ponies. Debouching at the eastern end, the path runs almost down to the shores of Aru Tso where the going is easy. Grass, water, and fuel are everywhere obtainable. Many old encampments are passed. A good road runs north and south passing along the western shores of Aru Tso.

12	Camp 62	..	Camp 61 (east shore of Aru Tso).			The road lies along the shores and round the south end of the lake. Many streams and
----	---------	----	----------------------------------	--	--	--

ponds are passed all of which are fresh. The road is good with the exception of a few quicksands in the bed of the streams, all of which are fordable. Good water, grass and fuel can be obtained all along the route. The camp is on the eastern shores of Aru Tso. Game in the form of yak, antelope, and gazelle is plentiful.

Route No. 93.

FROM ARU TSO TO HUPING TSO.

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Aru Tso	..	..	See Route No. 92, stage 12.

ROUTE No. 93—*contd.*

1	Aru Tso (Camp 61).	Camp 60	..	20	20	Passing along the eastern bay of Aru Tso, the road leads up the centre of an open and almost
---	--------------------	---------	----	----	----	--

level valley, where the going is good, and both grass and boortsa abundant. There is, however, no water until the road finally crosses an easy pass, on the summit of which is a spring. Descending the eastern slope the road enters an open plain, in the centre of which is a little lake surrounded by a margin of salt. The going is here rather rough, and two broadish rivers have to be crossed, where grass and boortsa are very plentiful. We crossed the plain in one march, but it is advisable to halt near the stream, as there is neither grass nor water at Camp 60, though game abounds. The ground from the salt lake to the camp is heavy and rough, and many small *nalas* impede the rate of marching.

2	Camp 60	..	Camp 59	..	16	36	The road shewn in the map is not the best. A caravan when travelling by this route
---	---------	----	---------	----	----	----	--

should march due east until it reaches the river flowing out of Huping Tso. This path is almost level, and the going firm and good, and grass, water, and fuel plentiful. Many brine springs run from the mountains in all directions. The river is 30 feet wide, has a slow current, and is fordable everywhere, the water is fresh and the bottom hard and stony. The country to the south is open, but salt-pans are seen everywhere, and consequently there is no grass.

3	Camp 59	..	Camp 58	..	5	41	The road continues along the right bank of the river and the going, though somewhat cut
---	---------	----	---------	----	---	----	---

up by the rat holes, is, generally speaking, good. Both grass, water, and fuel are excellent; at a distance of 10 miles to the north-west are many brine springs and pools. The country is more open, making travelling in any direction easy. The range just south of the camp consists of undulating hills, while the mountains on the north are high and precipitous.

4	Camp 58	..	Camp 57 (Huping Tso.)	After crossing the stream the road has a slight incline till it passes over a low spur, and
---	---------	----	-----------------------	----	----	----	---

then continues along the southern shores of Huping Tso. The going is good and firm, and both grass and fuel abundant. Many old nomad encampments are met with along the shores of the lake.

See Route No. 89, stage 12.

Route No. 94.

FROM HUPING TSO TO LAKE MARKHAM *via* DIRECT ROUTE.*Authority and date.*—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Huping Tso ..	..	..	See Route No. 93, stage 4 and Route 89, stage 13.
	Huping Tso	Lake Markham	50	50	The road connecting these two lakes is practically level, crossing the range by a

low pass at 34° 30' north latitude. The going throughout its entire length of 50 miles is good, and grass, fuel, and water are obtainable in abundance.

See Route No. 88, stage 10.

Route No. 95.

FROM SHUM (CAMP 2) TO PIBOK (CAMP 7).

Authority and date.—CAPTAIN C. G. RAWLING, 1903.

No. of stage.	NAMES OF STAGES.		DISTANCES.		REMARKS.
	From	To	Inter- me- diate.	Total.	
		Shum ..	..	..	See Route No. 82, stage 16.
1	Shum ..	Camp 3 ..	8	8	The road runs for three miles of good going due east down the <i>nala</i> , and then turning

north, it crosses some low hills by a narrow ravine, and after traversing a second small range, enters the camp. Water is obtainable from a *nala* which winds through the second chain of hills. Boortsa is plentiful, but there is no grass. The country to the north-west is barren and waterless.

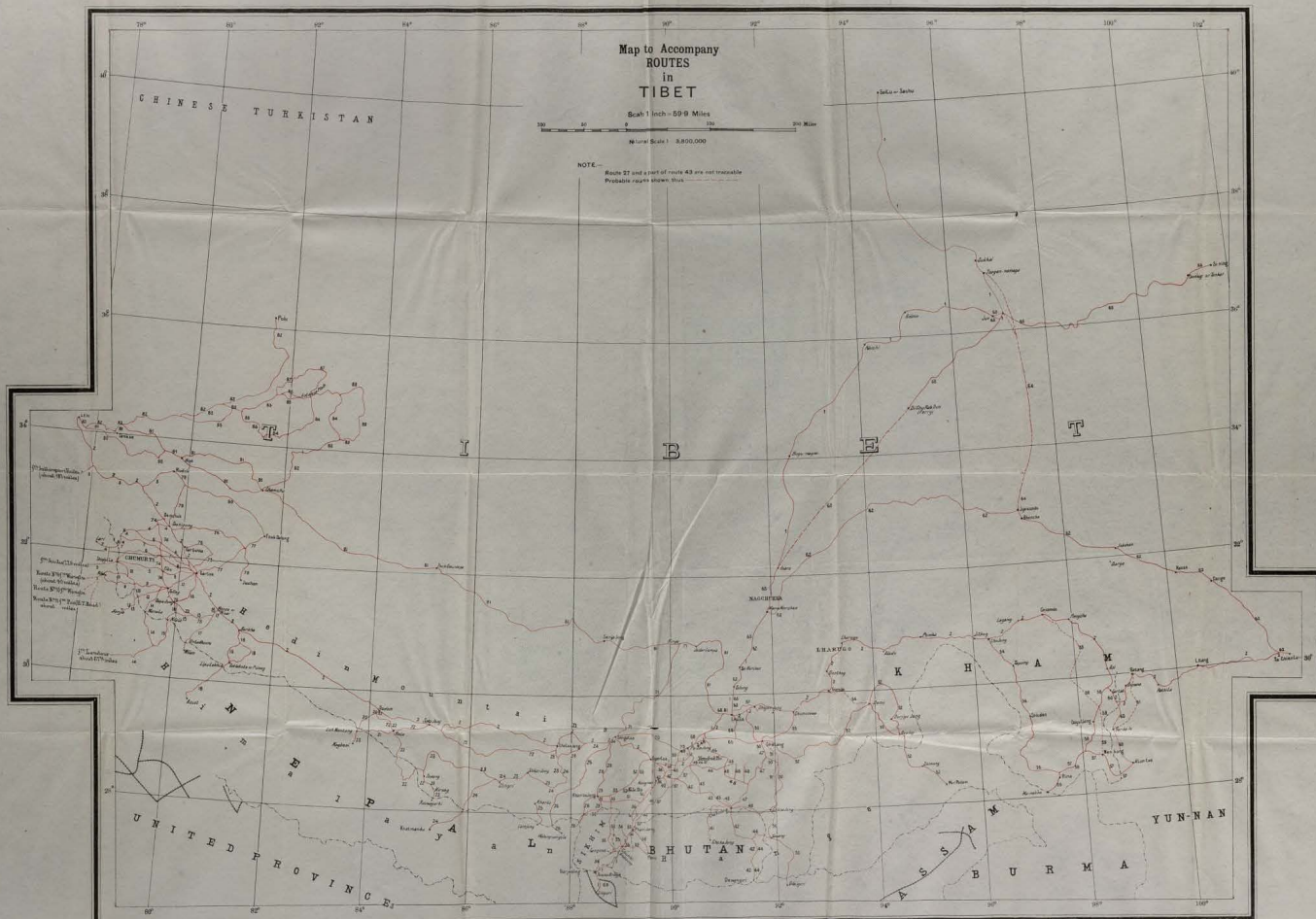
ROUTE No. 95—*contd.*

2	Camp 3	..	Camp 4	..	15	23	The road runs north for six miles, then rounds a spur and takes a south-easterly direction. The soil which is sandy is pure white in colour. There is neither grass nor water at the camp, nor along the road.

3	Camp 4	..	Camp 5	..	16	39	The path runs due east for four miles, then turns to the south-east, crossing an easy pass and continuing down a ravine. The soil is shingly, and the going heavy. Fuel and grass abundant at Camp 5.

4	Camp 5	..	Camp 6	..	20	59	The road runs along the north side of the Sumjeling Plain, passing along the northern shore of Lake 1, the water of which is fresh. Just before reaching camp an easy spur is crossed. Gravel soil, going heavy. A fair amount of grass and boortsa grow near the camping ground.

5	Camp 6	..	Camp 7 (Pibok)	23	82	The direction of march is nearly due east to the centre of Sumjeling Plain. Many small streams of fresh water are crossed on the road. Grass grows everywhere in small quantities, and boortsa is plentiful. See route No. 83, stage 6.



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T-37.

Con.

Additions and Corrections to Routes in Tibet,
1910.

DECEMBER 1912.

Cover and title page for 'Prepared by General Staff, Headquarters, India' *substitute* :—

"General Staff, India.

Revised to 1912."

Index of Routes—

Page (i).—After Route 5 *insert* :—

5-A.	AYILATSA	NAMRU
5-B.	MAYANG	SOMAR.

After Route 6 *insert* :—

6-A.	SHIPKI	BEGAR
------	--------	-------

After Route 11 *insert* :—

11-A.	Poo ..	BEGAR
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IOR: L/MIL/17/14/93/2

Page (ii) after Route 17 insert:—

17-A. MILAM | BARKHA |

17-B. JIACHAN | GYANEMA | MENZE.

After Route 18 insert:—

18-A. LIPPULEKH | BARKHA | TAKLAKOT.
PASS.

Page (iv) after Route 62 insert:—

62-A. BA-T'ANG | DERGE GON-
CHEN. |

62-B. PAI YÜ | KAKONG |

62-C. DERGE GONCHEN | CHIAMDO |

62-D. DERGE GONCHEN | TENG-KO |

62-E. TENG-KO | SHIH-CHÜ |

62-F. DERGE GONCHEN | KANTSE. |

Page 58, Route 2, stage 141, line 1, for '10' read '12', for '1962½' read '1964½'.

Line 5 delete 'bad'.

Lines 6 and 7, delete from 'it' to 'swamp'.

Line 7, for 'being' substitute 'are'.

Line 9 delete from 'There is' to line 10 'sites for tents' and substitute 'The ground is in places liable to be swampy and has many small streams running here and there. There are many dry places suitable for camping.'

The plain affords rich pasture to the nomad flocks, supporting at least 60 households, 2,000 yaks and 8,000 sheep.

Page 70—

Route 5, stage 12.

Line 2 for 'Suspenion'
read 'Suspension'.

Line 6, after 116½ insert:—

'A path fit for cooly transport runs up the Wangar Gad valley and crosses by the Babah pass into Spiti.'

Page 71—

Stage 16, line 7.

Delete from 'laden mules' to 'stones' in line 8 and substitute—

'The whole stage is passable by laden mules.'

Page 72—

Stage 18 at end of first paragraph insert:—

There is a rough track from Poo to Hangi, 17 miles, passable for laden yaks and regularly used in summer. Steep stony ascent from Poo over the Chuling La 13,500 feet, and rough descent.

A severe march.

Page 72—

After stage 18 insert:—

Alternative stages 16 to 18.

No.
of stage
and
total dis-
tances.

DETAILS.

16-A.	JANGI	POO	17	An alternative route from Jangi to Poo, fit for laden transport in summer, leaves Route No. 5 close to mile 166 passes near
-------	-------	-----	----	---

and to the north of Lipi and then gradually ascends Runangla (13,500'). This is a better and much shorter route than *via* Kanum or Labrang (see last paragraph, stage 18). Coolies prefer the latter as they are relieved there, but it should be possible to arrange for the relief to be waiting at some point on the former route when using cooly transport. Public Works Department was building a bridge over the stream just above Sunam in September 1910.

Camping ground in field below village.

Water and fuel plentiful.

Grass obtainable if notice given.

2 SUNAM POO 16 Follows the Shiaso path for $2\frac{1}{2}$ miles, thence winds up to

33

Chalingla or Chagarling Pass (this is referred to as the Gove La in last paragraph, stage 18) which is reached at mile 6. Easy descent to mile 9, then a steep detour (descent) to avoid cliffs. At mile 11, Tsaraku, a summer village with some 60 acres of cultivation belonging to Poo is passed. Thence rough stony descent to Poo.

N.B.—Now that the suspension bridge over the Sutlej, 3 miles above Poo, has been completed and connected by a good mule path with Poo, presumably the last section of the road from Khanum *via* Shiaso to the frontier will be made passable for Government mule transport.

Page 73—

At end of stage 19 insert:—

Note.—Poo to Namgia, 10 miles, is the usual stage.

This stage would be fit for mule transport if the Tidang nullah (21 feet span) were bridged and the gradient between miles 197 and 199 eased.

Page 74—

Stage 21, lines 7 and 8 for Kiuh read Kiuk.

At end of stage add:—

There are now rough foot bridges across the Shipki and Rokti streams.

Opposite Tyak is another good ford across the Sutlej possible from October to May by which an alternative Route to Gartok is said to pass (*via* Rahni 2 miles and Begar).

Stage 22, delete second paragraph and substitute:—

The paths from the Drongmola (Chumurji route) through Teza Dogri come in at Mayang and Tyak at about 7 and 8 miles respectively from Teza; both are used by laden yaks.

Tyak to Mayang is possible for laden yaks (in September) they wade and swim the latter part some 2 miles into Tyak whilst pedestrians follow the goat track above.

From Mayang a path leads up the Tashilung Gunga Gorge joining the Chumurti Route at Somar (Route 6, stage 4), it is narrow but fit for laden yaks and could easily be improved. There are no bad passes, but the villages exist in summer only. Page 75, Route 5, stage 26.

In line 3 from bottom of page—

After 'camp' insert:—

Just above the ford there is a good site for a bridge; the stream narrows to about 20 feet, flowing between two granite rocks; a rough stone abutment has been made on one rock.

A bridge here would shorten the passage of the dak by one day during the summer and autumn.

Page 76, Route 5, stage 30—

Line 1.—Delete $12\frac{1}{2}$, and substitute '14' delete '315', and substitute '316 $\frac{1}{2}$ '.

Line 4.—After miles, insert "then along a level plain."

Line 6.—Delete: "also a few huts."

Page 77, line 9, delete from "Yaks are" to quantities inclusive.

At end of stage 30 insert:—

Note.—The Bhutiya traders generally do this stage in two marches, the first halt being at the Jagrachan camping ground at the foot of the Ayila, mile 6. Ayi La Tsa is known to the Bhutiyas as Lalungup.

After page 77 insert

Route No. 5-A.

FROM AYI LA TSA TO NAMRU.

$15\frac{1}{2}$ miles.

2 stages.

Connects Route 2, stage 140 with Route 5, stage 30.

No. of stage and total dis- tance.	DETAILS.
1	BEMRADUNG 8. m. 4 f. A good easy road, crosses the Nursum stream, fordable, and
8 m. 4 f.	
C308GSB	

ascends the shoulder of the mountain on the left. Crosses the Changton La, 17,300 feet, passes over the neck and descends to camp.

2 NAMRU ..

7 m. The road passes over rolling downs till it reaches the *nalas*,

15 m. 4 f.

which lie on each side of the hill near Namru. The road to Gargunsa passes up the *nala* to the west, that to Gartok up the *nala* to the east.

Namru, 2 houses, is the seat of a Pombo. There is some cultivation. A good camp can be found at the mouth of the western *nala* near a ruined fort.

Route No. 5-B.

FROM MAYANG TO SOMAR.

32 miles.

3 stages.

Authority.—Captain C. H. T. Whitehead, September 1910.

Epitome.

This route connects the Sutlej River-Chumurti (Routes 5 and 6).

The only really difficult stream is bridged.

No.
of stage
and
total dis-
tance.

DETAILS.

1

PUSE LA ..

13 m. Path crosses Mayang stream and ascends steeply to avoid the

13 m.

Tashilung Gorge, the right bank of which it follows. At 4 miles it descends to the stream which it follows for 4 miles. At 6 miles the summer village of Gyazum is passed.

At 8 miles it turns up a dry nullah which it follows one mile to the head and then enters a stony valley and winds up the Puse La ridge; summit is reached at 11 miles, (15,500 aneroid) thence easy descent to stream where camp.

Water.

Fuel.—A little yak dung.

Fodder.—A little grass available.

2 **DAZZAM BRIDGE** 10 m. Path rough but no passes. The bridge is a natural rock one.

23 m.

Water, fuel and a little grass available. In summer when the stream is swollen the Simla-Gartok mails have at times to be brought round by the bridge from Nu, a distance of 19 miles.

It is a fairly level but rough track.

3 **SOMAR** .. 9 m. Two miles below the bridge is the monastery of Yidi and a

32 m.

few houses but no cultivation. The track crosses the Somar La about 15,000 feet and descends to Somar (Route 6, stage 7).

Page 79.—After stage 6 insert:—

Alternative to stages 1 to 6.

A rough track, but fit for yaks, crossing no high passes.

No.
of stage
and
total dis-
tance.

DETAILS.

1 **SHIPKI PUDE** 13 m. See Route 6, stages 1 and 2. Pure is pronounced "Pude."

13

Small monastery here, water, fuel, grass, and a few yaks are available.

2 **TEZA** .. 9 m. Follow Route 6 through villages of Tsar, 2 miles and Iyer at

22

23. Just beyond the latter this path branches to right crossing the Tangmet by bridge and ascends the Teza La (14,300), thence easy descent to Teza Dogri, a summer grazing ground with only two households (13,500 feet).

Water, fuel and grass available.

3 **PUSE LA** .. 15 m. The path follows up the Teza nullah 2 miles and then winds

37

up the south slope, almost too steep for laden yaks. The summit (Reungla Pass 14,500') is reached at 4 miles. The path then runs along near the top of the ridge for a mile. Then descends

into a small valley which it follows for 2 miles and crossing the low ridge on the left reaches Gyazum on the Tashilung stream at 8 miles where it joins Route 5-B.

Camp may be pitched here.

Water, fuel and grass are available.

The Puse La camping ground is 7 miles on (*vide* Route 5-B).

Page 80.—At end of Route 6 *insert* :—

Route No. 6-A.

FROM SHIKPI TO BEGAR.

56 miles.

5 stages.

Authority.—Native information, September 1910.

Epitome.

A rough track passable for loaded yaks across very sparsely populated country.

No. of stage and total dis- tance.	DETAILS.	
1	SARGUM	6 m. As in Route 5 to Kiuk where this path branches to the right.
6 m.	Sargum is a village of about 9 households and some 100 acres of cultivation. Water, fuel and grass available.	
2	KUANG	11 m. Rough ascent to Darshila (about 14,000 feet). Thence
17 m.	descend to Kuang, a summer grazing ground with a little cultivation (belonging to Rahni on left bank of Sutlej, 1½ miles above Tyak). Water, fuel and grass available.	
3, 4 and 5	BEGAR	39 m. There are three marches of about 13 miles each, over two
56 m.	passes, the higher about 17,000 feet. Water, fuel and grass available near each camping ground, but no houses <i>en route</i> . Begar is a village of about 12 houses, and 150 acres of cultivation. From here a passable track for laden yaks connects this	

route with Route 5, stage 25, *i.e.*, Nu; it is about 14 miles and crosses the Sutlej by Tinzam Samba.

Page 85.—Route 9, stage 11. At end of stage *insert* :—

A difficult track leads from here over the Tangi passes into Bashahr traversing a very wild country without any villages.

Page 88.—*After* Route 11 *insert* :—

Route No. 11-A.

FROM POO TO BEGAR

46 miles.

4 stages.

Authority.—From native information, September 1910.

Epitome.

A rough track passable in summer for laden yaks across a pass of about 18,000 feet.

No. of stage and total dis- tance.	DETAILS.	
1	RISHI	.. 10 m. Cross jhula below Poo over river Sutlej (animals are slung across); thence climb over ridge 4 miles into Rishi nullah (summit of ridge, 11,000 feet); thence an easy path up the right bank; water, wood and a little grass available.
10 m.	2	LAMUCHE .. About 17 m. A severe march, follows up the Rishi nullah and crosses the Gantang Pass (Gan=permanent snow) about 18,000 feet, near the head of the nullah. Water, fuel and a little grass available.
27 m.	3	ZAMSURI .. 9 m. Cross the Kiuk Rangla about 15,000 feet to Zamsuri camping ground which is close to the frontier. Water, fuel and a little grass available.
36 m.	4	BEGAR .. 10 m. Slight ascent, some 500 feet, over Kuguok-la.
46 m.		

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Page 90.—Route 12, stage 12.

6th line from bottom of page—

Alter “ consist of, three ” to read “ consists of one.”

5th line from bottom of page—

Delete “ substantially ” and substitute “ mud brick.”

4th line from bottom for ‘ house ’ read ‘ houses ’.

Page 92.—Route No. 14.

Epitome.—Delete and substitute—

The Mana La, or Tunyi La is closed from December to May ; it is used by the Mana Bhutyas (Tolchas) who do a small trade in salt, borax and wool with Chuprang and To Ling. The road is very bad and never repaired.

Page 93.—Stage 8, line 1.

For Kuranprag, read Karan Prayag. Line 4.—After “ dispensary ” insert “ A few ”. At end of stage add :—

Karan Prayag, Post Office, Telegraph Office, 30 houses, lies on the junction of the pilgrim routes to Badrinath from Hardwar and Ramnagar. From here up to Joshinath the road is the main pilgrim route ; it is well made, with a ruling gradient of 1 in 8. Every 4 miles there are pilgrim rest-houses with a few supplies, and every 9 miles Public Works Department inspection bungalows.

Delete stages 9, 10, 11 and 12 and substitute :—

9	NASRU ..	9 m. A pilgrim rest-house and Public Works Department bungalow.
111 $\frac{1}{4}$		
10	CHAMOLI ..	9 m. Headquarters of the Northern Garhwal Patis, Post Office and
120 $\frac{1}{4}$		
Telegraph Office, and Dispensary, stone and iron suspension bridge over Alukanda, water plentiful.		
11	PIPAL KOTI ..	9 m. 20 houses, pilgrim rest-house and Public Works Department
129 $\frac{1}{4}$		
bungalow.	Water procurable.	
12	GULAB KOTI ..	9 m. 3 houses, pilgrim rest-house and Public Works Department
138 $\frac{1}{4}$ m.		
bungalow.		

- 13 JOSHINATH .. 9 m. Winter head-quar-
ters of Rawal of Badri-
nath Temple and
147½
Mana and Niti Bhutiyas, Post Office and Telegraph Office,
2 Dâk Bungalows, Dispensary. Bridge over the Alukanda.
14 PILGRIM REST- 6½ m. Road steep and
HOUSE. rough.
153¾ m.
15 BADRINATH 6½ m. Road steep and
rough.

160¼ m.

Page 94. Stage 13, renumber as 16; for 163 read 169½.

Stage 14 renumber as 17; for 174½ read 180¾.

Stage 15 renumber as 18; for 186 read 192½.

Stage 16 renumber as 19; for 194¼ read 200¾.

Stage 17 renumber as 20; for 200½ read 207.

Stage 18 renumber as 21; for 215 read 221½.

Stage 19 renumber as 22; for 220 read 226½.

Page 95. Route No. 15.

Epitome.—Delete lines 6 and 7 and substitute:—

The Niti Bhutiyas (Marchas) trading in salt and wool use this route until the Chor Hoti opens in June. The main difficulty lies in the gorges between Surraithota and Malari.

Supplies *nil*, fuel obtainable as far as Niti after which *bhoortsa* is used.

Water plentiful, grazing good.

Delete stages 1 to 6 inclusive and substitute:—

No. of stage and total dis- tance.	DETAILS.
1	TAPUBAN .. 7 m. Along the Duli valley. At mile 4½ is a long ascent and
7	descent of a spur. Cross the Tapuban torrent by a wooden bridge 20 feet long. A path leaving the route at mile 3½ and running at a lower level saves 1½ miles, but is difficult for ponies. Tapuban is the junction of the route <i>viâ</i> the Ramini- Kugri Pass, 40 houses. No supplies. Hot spring.

2 SURAITHOTA .. 10 m. Road ascends several spurs till mile 5

17 m.

when it falls and crosses and recrosses the Duli by a wooden cantilever bridge 90 feet long. The 6th mile is difficult being galleried on the cliff face; remainder of stage easier, crossing the Surraithota, unfordable, by plank bridge.

3 JUMA .. 8 m. At start crosses the Duli by wooden cantilever bridge, 80

25 m.

feet long. Follow right bank. There are three difficult places. At mile 1 a fordable torrent spanned by a plank bridge. At mile 3 a nala with precipitous banks, at mile 5 a rock gallery. The Juma torrent is crossed by a wooden cantilever bridge 40 feet long.

4 MALARI .. 9 m. In the first mile the road crosses and recrosses the river by

34 m.

wooden cantilever bridges 40 feet long. Then ascends a big spur, and descending crosses the river at mile 5 by a wooden cantilever bridge 30 feet long. Thence runs along a narrow gallery on the cliff face and ascends and descends two steep spurs. The Malari is crossed by a plank bridge and the road runs through broad cultivated fields to Malari, 40 houses.

5 NITI .. 9 m. At mile 1 the river is crossed by a wooden cantilever bridge 60

43 m.

feet long. Thence the road is good and easy past the villages of Phurkea and Gurguti, the latter on the opposite bank of the Duli, reached by a wooden bridge. The road continues good as far as Bompa, 40 houses, school and trade registry office. A Post Office is to be established here. Beyond this coolies are not available; *jibbus*, of which there are 200 in the village, are the best transport.

The Gumsali flowing in a deep nala is crossed by a wooden cantilever bridge 40 feet long and the village of Gumsali, 20 houses, passed, after which the road enters a gorge one mile long, shut in by impracticable cliffs. The road is carried high above the right bank by a steep ascent and descent; the *jibbus* have to be unloaded in places. This gorge can be turned by cross-

ing the bridge to Gurguti and passing over the mountain above the village. At 8 miles Niti camp (Tinkarsan) reached by a wooden cantilever bridge 40 feet long.

At mile 9 Niti village, 40 houses.

6 GOTING .. 5 m. Cross Kaizabar torrent, unfordable, by plank bridge. Rise 12,500' 48 m.

above Niti village and cross several steep spurs. Then fall gently to the camping ground. There is a very rough path on the right bank and a stone bridge one mile below Goting.

Stage 7, line 1.—Under Kharbasiya add 13,400'. For '52' read '53'. Lines 5 and 6, delete 'fordable in the morning'.

Line 7 delete 'can be easily' and substitute 'has been'.

Line 8 delete.

Line 15. After 'gorge' insert:—

'which is difficult for jibbus owing to the shale slopes'.

After 'procurable' add:—

'Two miles further on is the Marcha halting place, which though more exposed is larger and affords better grazing.'

Stage 8, line 1.—Under Kiunglung add 14,300'. For 8 read 6 and for 60 read 59.

Line 6, for 'sometimes' read 'generally'.

Line 8 delete from 'a' to 'mountain' inclusive and substitute 'a steep spur'.

Line 9 for 'yaks' read 'jibbus'.

Line 10 for 'scarce' read 'unobtainable'.

Delete 'elevation 14,544'.

Stage 9, line 1 for '9' read '10'.

Lines 3 and 4 Delete 'crossing the river twice in the first 1½ miles'.

Line 6 for '3' read '2½'. After 'stony' insert 'and steep'.

Line 8 after 'gently' insert 'at first, then steeply into the Jindu nala'.

Delete from 'and marked' to 'in the season)' line 10.

Line 12. Delete from 'In addition' to 'ammon' line 13, inclusive, and substitute 'wild horse'.

Line 15. Delete from 'Water' to end of stage and substitute:—

'Water and grass plentiful, fuel scarce.'

Page 98, Route 16.—

Epitome.—Delete from 'The Niti La' to bottom of page and substitute:—

The Niti La, 16,500 feet, is 158 miles from Almora; the northern descent is at first gentle though easy country. The path enters a tributary nala of the Sutlej at Dapa Jong, Stage 3. From here the usual road to Gartok is either—

Page 99.—Delete stages 1 and 2 and substitute:—

No. of stage and total dis- tance.		DETAILS.
1	JINDU 14,500'	5 m. Along the shing- ly bed of the Duli for 1 mile; thence by steep and stony but easy descent to the pass at mile $2\frac{1}{2}$. Descend gently for 1 mile, then steeply into the Jindu nala. Camping ground at junction of the Jindu and Chhattdu.
2	GULU 14,900'	$9\frac{3}{4}$ m. At start cross the Jindu, always fordable; ascend steeply up the left bank to the plateau of Nilthanka, 15,300 feet. At mile 4 cross a narrow stony col and descend to the deep Chhanghus ravine. Skirt the head of the Lungri nala, camping ground, and along its left bank to Gulu. Camping ground below Bukakur hill. Water obtainable early in the season at which time there is none at Lungri.
3	DAPAJONG ..	11 m. Leaving the nala, cross a spur of Buka- kur hill; thence level along the plain crossing two small nalas in mile 3. Follow the plateau to the right bank of the Dapa Tsan Po, a small river. In miles 7 and 8 descend and finally cross a small stream in level cultivation to Dapa on high sandstone cliff, Headquarters of a Jong Pen; 5 houses, 2 Gompas, 20 monks. Water from a good spring. Folder good grazing. Supplies a little barley, 1,000 sheep, 10 ponies, 50 yaks.

4 CHOKA LA .. 17½ m. —Across the plain
to the Sutlej River
43 m. at mile 3¼. Cross by
wooden bridge 45 feet long, 4 feet wide. Traverse a grassy
plain to Churool Ba, a little water, and thence over gently
sloping hills.

Page 100.—Stages 4, 5 and 6 should be renumbered 5, 6
and 7 respectively.

Page 101 after Route 17 insert :—

Route No. 17-A.

See Routes 17-18.

FROM MILAM (KUMAON) TO BARKHA.

89 miles.

8 stages.

Authority.—Captain A. D. Stewart, August 1911.

Epitome.

Hill track passable for laden yaks and ponies, in parts ill-
defined. Crosses 3 passes in stage 2, the Untadara, 17,699
feet; the Jainti, 18,000 feet; and the Kungri Bingri 18,300
feet. The Chirchin River, unfordable after rain, is crossed in
stage 3.

Camping grounds.—Sufficient for a minimum of one bat-
talion except in stage 2.

Water.—Good and ample except in stage 7.

Fuel.—Scarce except in stages 4 and 6.

Fodder.—Grazing good at stages 1 and 7, elsewhere doubtful.

Supplies cannot be relied upon.

Distances only approximate.

The times are for laden yaks and ponies coming in the opposite
direction and are for rough guidance only.

No.
of stage
and
total dis-
tance.

DETAILS.

1	DUNG 10 m.	In places difficult for yaks. The track goes up the right bank of the river and then crosses it at an unfordable spot by a snow
---	---------	----------	--

bridge and continues up the left bank rising gradually till mile 8. Descend and cross an unbridged torrent by a detour involving a climb of 300 feet.

Camping ground.—On the right bank.

Water.—From the river.

Fuel.—Nil.

Fodder.—Good grazing.

Supplies.—Nil.

Time.—4½ hours.

2 CHIRCHIN .. 15 m. At mile ½ cross a stream by a snow bridge near which is a

25 m. wooden bridge of 2 spans each of 20 feet, roadway 3 feet wide, in bad repair. At mile 2 a locality called Bumlas, with some open grassy spaces, 30 by 40 yards, suitable for small camps. Ascend to mile 4, the Shadgal or Untarim glacier, ½ mile broad and difficult to cross, 16,400 feet. Ascend a steep and stony track to the Untadura Pass, 17,600 feet and fall to the Gang stream 17,000 feet. Ascend fairly easily north-east to the Jainti Pass, 18,000 feet at mile 6. Then turn east and descend steeply over shale and loose stones following a moraine on the left bank of a glacier. Cross the glacier north-east to the right bank. Ascend by a steep and rocky track to the Kungri Bingri Pass at mile 10. Go north-east down the valley, cross the Chirchin stream 10 feet by one foot, and rise gradually to a *nala*. Follow its left bank for ¼ mile to camp at mile 15.

Camping-ground.—For one battalion.

Water.—Good.

Fuel.—Rather scanty from scrub.

Fodder.—

Supplies.—Nil.

Time.—8 hours.

3 TAJANG .. 10 m. Cross three streams with room to camp ½ a battalion at each.

35 m.

At mile ¾ cross the Chirchin at its junction with the Togbu, 2 to 3 feet deep in several channels, unbridged, difficult to ford after rain. Follow the Togbu. At mile 5 Chalampani, camp for 20 tents, good water. Fall steeply to the Lutua *nala*.

Ascend to a pass, fall to the Lutua camp at mile 7½, room for 100 men, good water. Thence more level. At mile 8¾ a low

pass. Turn east and at mile $9\frac{1}{2}$ north-east winding through hills.

Camping-ground.—For one battalion, well sheltered.

Water.—From a good stream.

Fuel.—

Fodder.—

Supplies.—Nil.

Time.—

4 GUNYUNGTI .. 8. m. No track.

Start north-east down a *nala*. At mile 1

43 m.

cross the Tajang *nala*, then through stony ground crossing the Chinugu stream. Rise to mile $4\frac{1}{2}$ and fall to mile 5. Thence due east across a stony plain to the Gunyungti stream, 20 feet by 2 feet, running between steep banks, 15 feet high.

Camping-ground.—On the left bank.

Water.—From the stream.

Fuel.—Scrub plentiful.

Fodder.—

Supplies.—Nil.

Time.—4 hours.

5 GYANEMA .. 12 m. Across stony ground to mile $4\frac{1}{4}$; cross the

55 m.

Dharma river in 3

channels each 20 feet by 2 to 3 feet deep, unbridged.

Traverse a plain to mile $5\frac{1}{2}$, cross a low spur, go east and reach the end of a ridge at mile 6. Thence north-east across the plain. At Karkho is a police post and an old fort.

Camping-ground.—Good and unlimited.

Water.—From a lake.

Fuel.—

Fodder.—

Supplies.—

Time.—4 hours.

6 RING TACHU .. 10 m. Cross the plain till mile 4, then descend a valley bounded by

65 m.

bare hills. Good going till mile 9, cross a ridge. Thence east.
C308GSB

Camping-ground.—On a spur, unlimited.

Water.—From a stream for one battalion.

Fuel.—Juniper scrub.

Fodder.—Abundant.

Supplies.—Nil.

Time.—5¼ hours.

7 **LACHINDAK** .. 12 m. Start east. Ascend to
 ——— a pass on the main
 77 m. Rakas range 1,500

feet above the plain at mile 5½. Fall to mile 7; go north across a plain till mile 10½, descend a steep stony *nala* reaching the old bed of the Sutlej at mile 11¼. Follow it to camp at mile 12.

Camping-ground.—Good and extensive.

Water.—From a small stream fouled by herds.

Fuel.—Argols.

Fodder.—Grazing abundant.

Supplies.—

Time.—5 hours.

8 **BARKHA** .. 12 m. No road.
 ——— Keep parallel to the
 89 m. Kailas range across

the plain, at times hard and stony, at times sandy and boggy.

Camp, etc., *see* Route No. 18-A., Stage 6.

Page 101. After Route No. 17-A insert :—

Route No. 17-B.

FROM JIACHAN TO GYANEMA. *Viâ* Menze.

76 miles.

8 stages.

Authority.—Captain M. A. Nicholson, I.M.S., August 1912.

Epitome.—An easy road for pack animals, passing through open country. Crosses a pass, 18,000 feet, in Stage 2. The route is used to bring salt and borax from Jiachan, 2 houses, the headquarters of the Pombo, to Menze and Gyanema.

No information regarding camping-grounds, water, etc.

No. of stage and total dis- tance.	DETAILS.		
<hr/> 1	SOKHONA	..	6 m. Easy road over open country.
6 m.			
<hr/> 2	PARCHANGSUMA	..	6 m. Road crosses a pass of about 18,000 feet, by a steep and rough track, passable by yaks and by other animals if lightly laden.
12 m.			
<hr/> 3	LAMOCHÉ	..	6 m. Easy road over open country.
18 m.			
<hr/> 4	NIGRI	..	12 m. Easy road over open country.
30 m.			
<hr/> 5	MENZE (MISAR)	..	12 m. Easy road over open country. A small trade mart, Gompa
42 m.			
with 4 lamas. Hot spring.			
<hr/> 6	DOLCHU	..	11 m. Easy road over open country.
53 m.			
<hr/> 7	JINDU	..	12 m. Easy road.
65 m.			
<hr/> 8	GYANEMA	..	11 m. Easy road. A large Bhutiya trade mart, centre of a great
76 m.			
sheep-raising country.			

Page 103, after Route 18 insert:—

Route No. 18-A.

(See Routes Nos. 17 and 18.)

FROM LIPPULEKH PASS TO BARKHA Viâ TAK-
LAKOT.

51½ miles.

6 stages.

Authority.—Captain A. D. Stewart, July 1911.

Epitome.—Hill track passable for laden yaks and mules, in parts ill-defined. Crosses the Karnali, unfordable in stage 2 by wooden bridge.

Camping-grounds.—Sufficient for a minimum of one battalion with transport, except in stage 3.

Water.—Good and ample.

Fuel.—Scarce except in stages 4 and 5.

Fodder.—Doubtful.

Supplies.—Plentiful in stage 1, elsewhere cannot be relied upon.

Distances only approximate.

No. of stage and total dis- tance.	DETAILS.
1	TAKLAKOT .. 8 m.
8 m.	(TAKLAKHAR
OR PORANG).	Track passable for laden yaks.
Gradual descent following a <i>nala</i> in which flows a stream joining the Karnali at Taklakot. For the first 5 miles the valley is stony, it then opens out. At 4 miles Pala, a stone serai. At 7 miles Migram, 30 stone houses. The stream here is crossed by a bridge, but can be forded with difficulty. At Taklakot are two bridges over the Karnali, built of logs with 5 feet roadway, one a little below the fort, the other 800 yards upstream.	

Taklakot an important trade mart in a fertile valley.

Camping-ground.—

Water.—From the river,

Fuel.—

Fodder.—

Supplies.—Plentiful, peas, barley, and wheat.

Time.—On march $3\frac{3}{4}$ hours.

2 RUNGONG .. 8 m.

Well defined stony track. At start cross Karnali, unfordable,

16 m.

by wooden cantilever bridge 50 feet long, 5 feet roadway. Turn west up left bank. Ascend gradually leaving the river. At 5 miles cross a *nala* $\frac{3}{4}$ mile wide, with fordable stream from a glacier on the Gurla Mandhata. Then rise on to a stony plain.

Camping-ground.—For two battalions beyond the *nala* at mile 8.

Water.—From snow-fed stream.

Fuel.—

Fodder.—

Supplies.—

Time.—For yaks $3\frac{3}{4}$ hours.

3 GORIYUDH- 7 m. 4 f. YAR.

Well-defined stony track.

23 m. 4 f.

Ascends steadily.

At mile 2 Baldak camping-ground.

At mile 4 a track to the left to Barkha.

Camping-ground in a *nala* barely enough for one battalion.

Water.—From stream.

Fuel.—

Fodder.—

Supplies.—

Time.— $3\frac{1}{4}$ hours.

4 THOKAR .. 9 m.

Good track for pack transport. At start cross swift stream 12

32 m. 4 f.

feet by 2 feet deep; liable to sudden rise after rain and then unfordable. Rise gradually to mile 3, the Gurla pass, 16,200 feet, or 1,500 feet above the plain. Fall gradually to mile 9.

Camping-ground on shore of Mansarowar Lake, 15,000 feet, 3 miles east of Thokar Monastery.

Water.—

Fuel.—Low scrubs abundant.

Fodder.—

Supplies.—

Time.— $4\frac{1}{4}$ hours.

C308GSB

5

JIU

.. 12 m.

Track good.

44 m. 4 f.

Level for 9 miles
skirting the west shore

of the lake. At mile 6 Gozul Monastery.

At mile 9 turn inland, cross a spur and turn again to the lake
near a hot spring.*Camping-ground.*—400 yards from the shore, area 400 yards
by 300 yards.*Water.*—*Fuel.*—Juniper scrub.*Fodder.*—*Supplies.*—*Time.*—5 hours.

6

BARKHA

.. 7 m.

Start north-west.

51 m. 4 f.

Track good for 2½
miles then sandy, ill-defined and easy to miss. From mile 3 to mile 7 skirt corner
of Rakas Tal, keeping ½ mile distant from the shore. At mile
7 Barkha 2 houses.*Camping-ground.*—Ample.*Water.*—Good.*Fuel.*—*Fodder.*—Grazing good.*Supplies.*—*Time.*—3½ hours.From here Darchan can be reached by crossing the plain,
there is no track.*Page 203. After Route 62 insert:—**Note.*—The Rev. J. R. Muir (July 1911) gives the following
description of Route 62, stages 13 to 23 inclusive:—Kantse to Drangu also known as Hor Drangu, Changu or
Lu Ho T'un. Go down the plain for 10 miles to Pu Yü Long,
small village and lamasery. Cross a pass from the valley of
Tsa into another valley which runs to Tao Wu. Follow this valley
to Chuwo, small village with fine palace and some Chinese traders.
Thence down the Tao Wu river to Lu Ho T'un large lamasery,
2,000 (?) lamas. Lu Ho T'un can be reached from Kantse in 2
days very rapid going.Drangu (Lu Ho T'un) to Tao Wu, 20 miles. Go down west
side of river. At mile 10 one house, with French mission station

on the opposite bank. Cross by ferry. From here a road passable by mounted troops, runs up a valley to the west to Chantui; it is better and more used than the road which branches off to Chantui between Chuwo and Lu Ho T'un.

Cross a hill and descend the river to Kuan Chai; Tao Wu is the residence of a Chinese official; there are many Chinese traders and a French mission station.

From Tao Wu Tachienlu can be reached in 6 stages.

Note.—Unlike the Tachienlu-Bat'ang road, this route is to a great extent free from difficult passes. There are only two high passes between Derge and Tao Wu. The road often traverses grassy plains and is very good.

Large caravans for Lhasa, etc., prefer this road, although settlers are very few.

Page 203. After Route 62, Note, insert:—

Route No. 62-A.

FROM BATANG TO DERGE GONCHEN (KENG CH'ING.)

? miles.

9 stages.

Authority.—Rev. J. R. Muir, June 1911.

Epitome. A road passable for pack animals, connecting the main north and south routes into Tibet. Traverses well-watered country. Passes are crossed in stages 3, 4 and 6. No details regarding camping-grounds, etc., but supplies especially of grain appear to be procurable at stages 1, 5 and 6. Grazing is reported to be scarce.

The stages are longer than ordinary.

No. of stage and total dis- tance.	LANG WENG	DETAILS.	General direction north-east.
1	LANG WENG	..	direction
70 li (about 20 m.)		Follow the larger of	

the two rivers which meet below the old lamasery at Bat'ang. Traverse district of Ch'i T'sun, many small villages. Some grain grown.

2 **PAO HSI**

Continue in the same valley. Pass a ridge. River now flows from south-east. At Lang

To (half way) go up valley of a smaller river to Pao hsi.

3 **SAMA**

Continue in the valley of the smaller river. Ascend to a pass leav-

ing the valley of the Bat'ang river and descend north-west in another valley to Sama. Rest-house. The village lies further up the hill.

4 **K'AI YU**

Continue down a river. At mile 6 meet the Chong river flowing

from the north-east from the Chantui country. At the half stage is Tachi rest-house; there are settlers on the hills above. Climb a very steep mountain, the watershed between this and the Yangtzü valley. Descend rapidly into a valley. Cross a river in skin boats. Hsiung Sung, the new capital of Sanngai, lies west of this river about half way up the mountain. Roads lead from here to Gonjoh and Kengch'ing. Follow the Chong river north-west. Pass a small settlement with a school. Leave the main river where it turns west and go up the valley of a small tributary about north-west to K'ai-yü, one large building

5 **PAI YU**

Return for a mile or two; then ascend in another valley

to the north. Pass Hungtung, 1 house. Cross a pass. Meet the Ngul, or Silver River, three miles beyond which is a small village. Thence down the river to Pai Yü, important town. Monastery of 200 lamas of red sect; district well cultivated, population 3,000 families. Residence of a Chinese official whose jurisdiction extends along this route as far as Bat'ang.

A road runs from here to Kakong over the hills to the west and beyond the Yangtzü. Another road follows the Ngu river south and east to Litang.

6 HOPO

Ascend steeply out of the valley up the right side of the river. At mile 5 a small lamasery. Thence ascend more easily to top of a pass, with a good deal of snow which melts later in summer. Descend steeply on a bad road. Rise again out of the valley and cross into another valley to the north. Country now better inhabited. Fall steeply to the Dzin Valley.

Hopo an important village and centre of manufacture of brass work. From here a road runs up the valley of a large stream to Rong Bacha.

7 TEH HSÜ

Down the valley of the Dzin river for about 8 miles to its junction with the Yangtzu. At mile 14 cross a small tributary of the Yangtzu by a bridge which marks the boundary between Paiyü and Keng Ch'ing.

8 KUNG YA

Continue along the left bank of the Yangtzu, leaving it at the point where the ferry is crossed on the road to Kakong and Chiamdo.

9 KENG CH'ING

Only half a stage. A trading centre for Chinese merchants.

Residence of a Chinese magistrate.

Route No. 62-B.

FROM PAI YÜ TO KAKONG.

? miles.

4 stages.

Authority.—Chinese Official List, 1911.

This route connects stage 5 of Route 62-A, with stage 4 of Route 62-C. It is apparently passable for mounted troops.

No.
of stage
and
total dis-
tance.

DETAILS.

1

CHANGKU

C-308 G. S. B.

2	POLUNG	..	..
3	SU CHASI	..	..
4	KAKONG	..	..	A newly instituted Chinese magistracy.

Route No. 62-C.

FROM KENG CH'ING (DERGE GONCHEN)
TO CHIAMDO.

? miles.

8 stages.

Authority.—Chinese Official List, 1911.

Epitome.—A lateral communication between routes 2 and 62, apparently passable for mounted troops.

No. of stage and total dis- tance.	DETAILS.		
1	KANG TO	..	..
2	AIPA	..	..
3	KISUNG	..	..
4	KAKONG	..	..
5	PAI JIH	..	..
6	TOPA	..	..
7	JEH YA	..	..
8	CHIAMDO	..	..

Route No. 62-D.

FROM KENG CH'ING (DERGE GONCHEN)
TO TENG KO.

? miles.

5 stages.

Authority.—Chinese Official List, 1911.

Road passable for mounted troops.

No. of stage and total dis- tance.	DETAILS.	
1	KUOLO TUNG	..
2	SE LA	.. ..
3	LING TSUNG	..
4	LANGCHI LING.	..
5	TENG KO	.. ..

A newly formed
Chinese Magistracy.
Lies in the Yangtzu

valley. Very good crops are grown. The district contains
15,000 Tibetan families.

Route No. 62-E.

FROM TENG KO TO SHIH CHU.

? miles.

3 stages.

Authority.—Chinese Official List, 1911.

Road passable for mounted troops.

No. of stage and total dis- tance.	DETAILS.	
1	KUAN CHAI..	..
..

The half way halt
is at Lung Jung
K'ou.

2 CHÜMÜ

3 SHIH CHÜ A newly instituted
Chinese Magistracy
in the Yalung valley.

It is a nomad centre, important owing to its position on the south border of the Golok country. A road runs from here to the main north road near Kanze, which is reached in 3 long stages.

Route No. 62-F.

FROM KENG CH'ING (DERGE GONCHEN)
TO KANTSE

? miles.

4 stages.

Authority.—Reverend J. R. Muir, July 1911.

Epitome.—A road suitable for mounted troops traversing a very sparsely populated district.

No details regarding camping-grounds, supplies, etc.; grazing, however, appears to be abundant in stages 2, 3 and 4.

The stages are about twice as long as those on the Tachienlu—Bat'ang road.

No.
of stage
and
total dis-
tance.

DETAILS.

1 KUO LO TUNG .. Ascend the valley of
the Derge river;
numbers of farms

until the road enters a canon.

Towards the end of the stage reach the confluence of two rivers, turn up the valley to the right, thus leaving the Teng ko road. Kuo lo tung, a lamasery and some farms. Much gold mining.

2 SHAN KEN TZE .. Rise on to a grass
country. At half
way Zangchen lama-

sery

Ascend the valley and halt at the foot of a pass. A nomad
amping-ground ; no houses.

3 YULONG Ascend a very high
pass in the Hor
range ; traverse a

district inhabited only by nomads.

Yulong consists of one large house ; it lies on the main north
road.

4 KANTSE Traverse practically
uninhabited country
as far as the Rong

Bacha plain, which extends as far as Kantse. The plain is well
cultivated and there are villages every mile or so. At Pai-li cross
the Yalung in boats of skin.

Kantse is the most important centre on this road. The dis-
trict is rich and trade is good. The lamasery contains 1,000
lamas. The plain extends for a distance of 10 miles south-
west.

Page 230. Route 73.

Delete stages 6 and 7 and substitute :—

6 DAPAJONG to 11m. At mile $\frac{1}{2}$ the road rises
— MANG NANG steeply and runs be-
77m. tween sandstone

pinnacles. At mile 4 Dungsa, a ruined *gompa* in the Tibaksen
nala, with a little cultivation.

Thence steep and rough past several ravines, some of which
contain water.

Descend steeply to the Pagala river at mile 8, near its con-
fluence with the Mangnang ; here there is a good camp. At mile
11 Mangnang, a *gompa* and two houses ; ruined *gompa* on the
cliff opposite.

7 MANGNANG 14 m. The road ascends shelf
— TO TOLING, after shelf on the old
91 m. 12,200'. bank of the river

reaching Mangnang Thang at mile 6. Thence for two miles along
the edge of a deep sandstone *nala* which it finally descends by a
long steep corridor. The road is then level, but winding among
ravines till mile 13 when it reaches an open plain.

Page 231. Route 74, stage 9.

Line 1, delete 'is a large village' and substitute :—

' Has 6 households, and a *gompa* with 10 lamas. 600 sheep.
30 yaks and 3 ponies are obtainable. '

Page 231. Route 74, stage 10.

Delete and substitute :—

10 DUNKAR to 16 $\frac{1}{4}$ m. After ascending the
TOLING. Tang Muchiya *nala*,

115 $\frac{1}{4}$ m.

the road runs along
a gently sloping plateau for 3 miles till it descends to the Choli
ravine, where it becomes very bad, stony and difficult. Thence
along a shelf above the Pangyoumya ravine, through a gorge at
mile 9, where there is room to camp, and down the gradually
widening dry ravine to its junction with the Sutlej opposite
Toling.

IOR: L/M14/17/14/93/3

M.

43686

1918

Confidential.

Additions and Corrections to Routes in Tibet, 1910.

SECOND SERIES, 1918.

1. Index of Routes.

Page (i). *After* Route No. 2, *insert* :—

2-A. CH'AMDO . | BATANG . . . | YENTAIT'ANG, DEAYA AND
GONJO.

2-B. CH'AMDO . | RIWOCHÉ (LEIWUCHI) | ENTA.

After Route No. 5-B., *insert* :—

5-C. NAMGIA . | ZAMSAM . . . |

2. Page (iv). *Delete* corrections issued December, 1912, Routes E to F, and *substitute* the following :—

After Route 62 *insert* :—

62-A. YILUNG .	TACHIENLU . . .	
62-B. TAO-FU .	TACHIENLU . . .	T'AINING.
62-C. BATANG .	DERGE GONCHEN .	
62-D. BATANG .	DERGE GONCHEN (Al- ternative Route).	
62-E. PAI-YU .	K'AKUNG . . .	
62-F. YILUNG .	CH'AMDO . . .	
62-G. YILUNG .	DERGE GONCHEN .	DZOGCHEN (JOKCHEN).
62-H. GERGE GON- CHEN.	TENGK'O . . .	
62-I. TENGK'O .	SHIH-CH'U . . .	

3. Page 60, *after* Route No. 2, *insert* the following:—

Route No. 2 A.

(ALTERNATIVE TO ROUTE 2, STAGES 20 TO 37)

CH'AMDO to BATANG, *viâ* YENTAIT'ANG, DRAYA
AND GONJO.

188 $\frac{3}{4}$ Miles . . . 11 Stages.

Authority—MR. COALES, VICE-CONSUL,
TACHIENLU, MAY 1917.

1 PAOTUN... ...20 m. The road runs down the R.
Mekong (Dza Ch'u) for 2 miles,
then ascends a small ravine to
the Sogtri La, the last part of the ascent being very steep, and the road bad.
The descent is easy. Half-stage at Meng-P'u R. H., whence the road
descends to the Nge Ch'u, and ascends from it to Paotun. This part is
difficult in places. The distance is called 110 li (27 $\frac{1}{2}$ m.), but is really 80 li
(20 m.).

Houses and cultivation are frequent. "Ula" is changed at Mengp'u and
at Paotun.

2 SHING-K'A... ...12 $\frac{1}{2}$ m. Two miles beyond Paotun the Main
Road to Draya is left, and the
road crosses the Pudug La and
follows the Mekong valley below the crest of the mountains to Shingk'a,
crossing 2 easy cols. Cultivation is frequent, and the road is good.

"Ula" is changed at Shingk'a.

3 YEN-TAI-T'ANG... 22 $\frac{1}{2}$ m. The road, stony and bad in places,
crosses the Yanga La, an easy Pass,
and descends the valley of the
Ja Ch'u to its junction with the Me Ch'u at Towa, and then follows the
latter river for 3 miles to Yen-Tai-T'ang.

Villages and cultivation are general from below the pass. "Ula" is
changed at Jangragong, Op'o, Keparawa and Yen-tai-t'ang.

4 RANGDRUB... ...15 m. The road, which is very good, follows
the right bank of the Me Ch'u
crossing to the left bank at
Gyalowa.

Villages and cultivation all the way. "Ula" is changed at Gyalowa and
Bangdrub.

5 DRAYA... ...15 m. The road, which is generally good, continues up the Me Ch'u as far as Tso Tang, where "Ula" is changed. It then crosses the Ge La to Draya, the lower part of the ascent to the pass being very steep, otherwise the passage is easy.

6 RABJOR R. H.... 13 $\frac{3}{4}$ m. The road, generally very good, drops down to the Me Ch'u, which it crosses just beyond D r a, and then ascends a Tributary to Rabjor F. S. 7 miles from Draya the Main Road to Batang branches off to the South.

Villages and cultivation all the way.

"Ula" is changed at Rabjor.

7 GONJO... 15 m. The Zhonzi La, a double but fairly easy pass is crossed, and the road descends a small ravine to Gonjo.

The road is generally good, but the descent from the pass is steep at first. At Gonjo a main road branches off to the North to T'ungp'u.

"Ula" is changed at Gonjo.

8 LHATO CAMP ...22 $\frac{1}{2}$ m. For 7 miles the road ascends the cultivated valley of the Ma Ch'u. At K'ongsa the Sanai (Sanngai) road is quitted, and a long, uninhabited valley is traversed, and the Do La, an easy pass, is crossed. Just beyond the pass the Tibetan Camp of Lhato is reached.

The road is generally good and the country open pasture.

"Ula" is changed at the Camp. The distance is called 120 li (30 m.), but is really about 90 li (22 $\frac{1}{2}$ m.).

9 UK'AGANG 22 $\frac{1}{2}$ m. The road descends the valley of the Ong Ch'u all day, and is generally fair. Towards the lower end of the valley, villages and cultivation are frequent. "Ula" is changed at Taragamda and Uk'Agang. The distance is called 120 li (30 m.), but is really about 90 li (22 $\frac{1}{2}$ m.).

10 SHISONGONG... ...20 m. The road leaves the Ong Ch'u valley and ascends the Dru La Pass, descending to Rishisongto Rest House. It then ascends the T'o La pass and descends again to Shisongong. The ascents and descents of both passes are very arduous, and the road extremely bad.

No houses or cultivation seen. "Ula" is changed at Rishisongto and Shisongong.

11 BATANG... ...10 m. From Shisongong a precipitous descent is made to the R. Yangtse, which is crossed by ferry to Niuku, where "Ula" is changed. The Main Road is then followed to Batang. The distance is called 70 li (17 $\frac{1}{2}$ m.), but is really 40 li (10 m.).

Route No. 2 B.

CHIAMDO to RIWOCHÉ (LEIWUCHI) *viâ* ENTA.

Authority.—Mr. Coales, His Britannic Majesty's Vice-Consul,
Tachienlu, May 1917.

76½ Miles 3 Stages.

1 LAMDA ... 13¾ m. The road follows the R. Om Ch'u
crossing to the right bank at Ole
13¾ m. Ch'iao.

Villages and cultivation frequent. Road good all the way.

2 ENTA (NGENDA) 22½ m. Road ascends and crosses the
Namts'e La and is very bad and
36½ m. steep.

The descent to Lagong is short but steep. Below Lagong reach the Dzi
Ch'u and cross it by the Sung Lo bridge.

Thence a fairly good road to Enta along the Right Bank.

At Enta change "ula".

The distance is called 150 li (37½ m.), but is really about 90 li (22½ m.).
This stage is often divided into two.

3 RIWOCHÉ (LEIWUCHI) 29 m. A good road following the right
bank of the R. Dzi Ch'u.
76½ m.

3. Page 75, Line 7, Route No. 5, after "reached," insert:—

"A path runs from Namgia to Zamsam (Route No. 7, Stage 5); see
Route No. 5-C."

4. Page 77, at end of Route 5-B (Corrections December 1912) enter the following:—

Route No. 5 C.

NAMGIA to ZAMSAM.

33 Miles 3 Stages.

Authority.—Information supplied by the Rev. Strahl, Moravian Mission, Poo, and Lambadar Deva. September 1910.

Epitome.

A path connecting Route 5, stage 19 and Route 7, stage 5. A rough track, but not difficult, and passable throughout for laden yak, except across the twig jhula below Namgia. Supplies procurable at Chango.

1 NAKO ... 14m. Descend 1 mile to Jhula and cross river Sotlej; stiff ascent to monastery of Tashigang reached at 4 miles (important because of the Incarnation resident there who, owing to spiritual rank, has great influence). Thence, slight rise for about 1 mile F. S. Easy descent thence to Nako, a small hamlet. Fuel and water available.

2 CHANGO ... 12 m. At 3 miles a rough ascent some 400 feet up Maling'kad. Otherwise fairly easy going. Chango consists of some 20 houses and cultivation estimated at 200 acres. Supplies:—Att, (exports to Poo), Sattu, Yaks, Grass, Wood and Water.

3 ZAMSAM ... 7 m. Cross Chadam-La (about 14,000'. Water, fuel and very little grass procurable *vide* Route 7, stage 5).

5. Page 81, Route No. 7, Stage 5, at end of paragraph *after* "springs," insert:—

"A path connects Zamsam and Namgia (Route No. 5, Stage 19); see Route No. 5-C."

6. Page 102, Route No. 18, in the Column of Remarks, Table of Stages 1 to 10 and Distances, insert:—

"See Route 101, Volume 7, Indian Route Book."

Garbyang to Jolingkong and Lankpyalek, see Route 103, Volume 7, Indian Route Book."

Khela to Darma and Jolingkong, see Route 104, Volume 7, Indian Route Book.

7. Page 108, Line 1, *delete* "21," and *substitute* "22."

8. Page 199, Route 62, Stage 8, at the end of the paragraph *insert* :—

"From Jokchen (Dzogchen) a road runs to Derge Gonchen (*see* Route 62-G.)"

9. Page 203, *After* Route 62, *insert* the following :—

Route No. 62 A.

YILUNG to TACHIENTU (ALTERNATIVE to ROUTE 62, STAGES 10 to 23).

11 Stages. 220 Miles.

Authority.—Mr. Coales, Vice-Consul, Tachientu, May, 1917.

1 RONGPATSA 22½ m. The road follows the Yi Ch'u along the Right Bank.

22½ m.

Rises easily from the valley to 2 cols separating the Yalung and Yi Ch'u valleys, thence down to a small valley. No houses or cultivation near Rongpats'a, whence a branch road leads to Paiyu.

The road is excellent all the way. "Ula" is changed at Rongpats'a.

2 KANTZU ... 17½ m. Villages and cultivation all the way, and the road very good.

40 m.

"Ula" is changed at Lingts'o (5 m.) and at Beri (11½ m.), and again at Kantzu.

The road follows the right bank of the Yalung R. to within a mile of Kantzu, where it crosses (or at Beri in skin boats) and runs over hilly country to Kantzu.

The distance is called 110 li (27½ m.), but is really 70 li (17½ m.).

3 CHUWO ... 20 m. Road is very good throughout. It traverses the cultivated plain of Kantzu, crosses a low watershed dividing the She Ch'u and Yalung rivers, and then follows the She Ch'u to Chuwo, where "Ula" is changed.

60 m.

Half stage is at P'u-Yu-Lung, off the road.

4 CHANGKU(LUHO) 22½ m. Road generally good, following the right bank of the She Ch'u and crossing one neck. Houses and cultivation all the way. Close to Changku, a road to Chantui branches to the South. Changku is on a col 700' above river.

82½ m.

Half-stage at Tangk'o or Shokyiling.

At Changku "Ula" is changed.

The distance is called 110 li (27½ m.) but is really 90 li (22½ m.).

5 **JEN-TA-KOU** 17½ m. Road good all the way, follows the right bank of the She Ch'u, crossing to the left bank by a bridge near the Roman Catholic Mission at Jarat'ong (10½ m.).
100 m.

Close to Jen-ta-Kou is a Tax Station (Gara), which is passed. At Jen-ta-Kou there is a ferry, and a branch road leads thence to Chantui. Houses and cultivation are frequent. "Ula" for Taofu is changed at Changk'u.

Distance called 90 li (22½ m.), really 70 li (17½ m.).

6 **TACFU(TAOWU)** 22½ m. The road follows the left bank of the She Ch'u all the way, and is fairly good. Half-stage is at Ta-Chai.
122½ m.

At Chiang Chun Ch'iao, a small stream and a neck, 1000' high are crossed. Houses and cultivation all the way.

Distance called 120 li (30 m.), really 90 li (22½ m.).

7 **CHIA-PA** ... 10 m. Road good. Rises gradually out of the cultivated plain of Taofu.
133½ m.

N.B.—From Taofu, there is an alternative route to Tachienlu, *via* Taining.

8 **CHIEH-SE-CHUNG** 22½ m. The road ascends to the Sung-Lin-K'ou Pass; the going is steep and stony. Just below the Pass, is a Rest House.
155 m.

The descent from the Pass is easier, and the going better, through a long wooded valley. No houses or cultivation after leaving Chia-Pa.

9 **CH'ANG-PA-CH'UN** 27½ m. Road generally good, traversing a succession of valleys and small passes. Villages and houses (mostly ruins, frequent. "Ula" is changed at Chungku or Pamei, which is the half stage, and again at Ch'ang-Pa-Ch'un.
182½ m.

10 **CHETO T'ANG** 27½ m. Road stony. Fairly steep ascent to, and still steeper descent from, the Cheto Pass, 10 miles from Cheto T'ang.
210 m.

No houses or cultivation after leaving Ch'ang Pa-Ch'un. Half stage is at Erh-T'ai-Tzu Rest House.

Cheto T'ang is a scattered village.

11 **TACHIENLU** 10 m. Road good, a gradual easy descent all the way to Tachienlu.
220 m.

Route No. 62-B.

(ALTERNATIVE TO ROUTE NO. 62-A, STAGES 7 TO 11.)

TAOFU TO TACHIENLU, *via* T'AINING.

4 Stages.

100 Miles.

Authority.—Mr. Coales, Vice-Consul, Tachienlu, May, 1917.

1 **SUNG-LIN-K'OU** ... 22 $\frac{1}{2}$ m. See Stages 7 and 8, Route No. 62-A.
R. H.

22 $\frac{1}{2}$ m.

2 **T'AINING** ... 22 $\frac{1}{2}$ m. The road crosses low, grassy hills
and joins the main road below
Sung-Lin-K'ou Pass. No houses or
cultivation.

45 m.

At T'aining "Ula" is changed.

3 **HSINTIENTZU** ... 27 $\frac{1}{2}$ m. The road runs out of the T'aining
Plain, over a small col into a long
Ravine, where the going is stony.

67 $\frac{1}{2}$ m.Thence a short ascent to the Hai-Tzu-Shan (7 $\frac{1}{2}$ m.), and a steep, but short,
descent to a wooded, stony valley up which the road runs to Hsin-Tien-Tzu.

4 **TACHIENLU** ... 27 $\frac{1}{2}$ m. The road is generally good. Houses
and cultivation all the way. The
valley of the Yanakou stream is

95 m.

followed to the North Gate of Tachienlu.

10. Renumber Route 62-A (Corrections December 1912) as Route 62-C,
and after Route 62-C, enter:—

Route No. 62 D.

ALTERNATIVE TO ROUTE NO. 62-C.

BATANG to DERGE GONCHEN.

? miles.

10 Stages.

Authority.—Mr. Coales, Vice-Consul, Tachienlu, May, 1917.

1 **DAM** ... 8 $\frac{3}{4}$ m. The road, which is fairly good, follows
the Ba Ch'u. Villages and cultiva-
tion are frequent.

8 $\frac{3}{4}$ m.

At Dam "Ula" is changed.

The distance, called 40 li (10 m.), is really 35 li (8 $\frac{3}{4}$ m.).

2 MAOHSI ... ? m. The road continues up the Ba Ch'u, crossing a neck, 1200' high, and so cutting off a large bend. Later it leaves the Ba Ch'u, and follows a small affluent to Maohsi.

The road is good, except at the Pass, the descent from which is very steep. Villages and cultivation all the way.

"Ula" is changed at Lhamda and Maohsi.

3 SAMA ... 17½ m. The road ascends a valley, crossing the Ngupa La, and is fair except at the Pass, descent from which is steep. Cultivation around Maohsi and Sama only—elsewhere thick woods.

"Ula" is changed at Sama.

The distance, called 110 li (27½ m.), is really 70 li (17½ m.).

4 KAIYU ... 18¾ m. The road, which is fair, follows down a small stream, all day passing Dagyed Rest House, whence a branch road leads to Sanai (Sanngai), and at the end of the stage ascends an affluent for a short distance to Kaiyu. The valley is thickly wooded, and inhabited at the lower end only. "Ula" is changed at Dagyed Rest House, and at Kaiyu.

The distance, called 100 li (25 m.), is really about 75 li (18¾ m.).

5 RONGED ... 21¼ m. The road ascends a small ravine to the Me La, just below which is Obt'ang Rest House, and then descends to Ronged.

The road is generally bad, and the ascent to and the descent from the Pass is steep. Cultivation begins near Ronged, where "Ula" is changed.

The distance, called 80 li (20 m.), is really 85 li (21¼ m.).

6 PAIYU ... 8¾ m. The road, generally good, follows the Right Bank of the Ngu Ch'u to Paiyu, whence a branch road leads to Tungp'u (Kakung).

The valley is wooded, with frequent villages and cultivation.

7 GAT'O Lamasery ... 22½ m. ? The road crosses a very steep and difficult pass (Skucho La ?).

8 LINGSHO ... 25 m. ? The road descends the Dzin Ch'u, passing the village of Hop'o, whence a road branches off to Kantzu to the east, and then ascends the Chinsha Chiang (Yangtse ?) for 5 miles to Lingsho.

9 CHANGRA ... 25 m. The road continues up the Chinsha Chiang joining the Ch'amdo road at Kanght'o.

The distance is called 120 li (30 m.), but is really 100 li (25 m.).

10 DERGE GONCHEN 15 m. See Route No. 62-C., Stage 1.

Renumber Route 62-B (Corrections December 1912), as Route No. 62-E.

Delete Route No. 62-C (Corrections, 1912), and substitute the following:—

Route No. 62-F.

YILUNG TO CH'AMDO.

183 $\frac{3}{4}$ Miles.

11 stages.

Authority.—Mr. Coales, Vice-Consul, Tachienly, May, 1917.

- 1 **KANHAITZU** 15 m. Yilung on the left bank of the Yi Ch'u is left, and the road continues up the river, and halfway turns up a side valley passing Yarze Gonpa where the half stage may be made. The night is spent at a rest house called Kan Hai-tzu. No houses or cultivation seen. Road excellent all day. Distance about 60 li (15 m.).
- 2 **SHAN-KEN-TZU** 15 m. The road crosses the Tr'po La or Ch'iu-erh Shan, the water-parting between the Yalung and Chinsha (Yangtse) rivers. The pass is easy to within a thousand feet of summit, but the last part is very steep. The descent is very steep and stony and follows a narrow ravine down to the Shan-ken-tzu rest house. The pass is greatly feared by Chinese on account of ice in winter and snow in spring. Road bad except in the first portion. Distance about 60 li (15 m.).
- 3 **K'OLONDO** 12 $\frac{1}{2}$ m. The road continues down the valley passing halfway the lamasery of Mendra and reaches K'olondo at the junction with the Zi Ch'u. Road generally good going. No houses or cultivation until near K'olondo. Distance called 90 li (22 $\frac{1}{2}$ m.), really not more than (12 $\frac{1}{2}$ m.). "Ula" is changed at K'olondo.
- 4 **DERGE GONCHEN** 11 $\frac{1}{4}$ m. Road follows the Zi Ch'u, and for several miles threads a narrow chasm with perpendicular limestone cliffs. Here road is very bad, and many rickety bridges have to be crossed. Otherwise going is fairly good and houses and cultivation often seen. Distance called 60 li (15 m.), really about 45 (11 $\frac{1}{4}$ m.). Change "Ula" at Gonchen.
- 5 **KANG-T'O** 15 m. The road runs down to the Zi Ch'u to its junction with the Chinsha Chiang (R. Yangtse), passing the halfway house of Changra. Villages and cultivation frequent. The Chinsha is crossed in skin coracles to Kangt'o which is on the west bank. The road to Paiyü and Batang follows the East or Left bank. "Ula" is changed at Changra and Kangt'o. Road good. Distance is called 90 li (22 $\frac{1}{2}$ miles), but is about 60 li (15 miles).
- 6 **TUNGP'U** 22 $\frac{1}{2}$ m. The road follows the right bank of the Chinsha for a mile, and then turns up a small stream through a

limestone chasm. Further on a high pass, the Nge La, is crossed. It is not very difficult, but the descent on the further side is very steep. At Wara Gonpa, the Ndo Ch'u river is reached, and is then followed for a few miles down to Tungp'u. The road is bad, especially in the first gorge and over the pass. Several villages and some cultivation are seen. "Ula" is changed at Ngenang (Aipa) and at Tungp'u. Branch road to Jyekundo at Wara and to Paiyü at Tungp'u.

7 K'ARGANG 22½ m. The road follows the Dzi Ch'u, a tributary of the Ndo Ch'u all day. Shortly after leaving Tungp'u, there is a gorge in the limestone after which the valley opens out, and villages and cultivation are frequent. Road generally good. "Ula" is changed at K'argang, whence a branch road runs to Gonjo. The distance called 150 li (37½ miles), is really about 90 li (22½ miles).

8 CHORZHUNG 22½ m. The road enters the grass country, and crosses two easy passes, the Kele La and Kara La. At 40 li (10 miles) below the Kele la is a rest house called Doka. No houses nor cultivation are seen except just after K'argang. Road excellent all day. Distance called 120 li (30 miles), really 90 li (22½ miles) approx.

9 T'OPA 17½ m. Grass country continues. One easy Pass, the Lazhi La, boundary of Tungp'u and Ch'amdo, is crossed. Road excellent. No houses nor cultivation. T'opa, like Chorzhung, is merely a Rest-House. "Ula" is changed at camp of Beri chief below pass, and at T'opa.

10 REYA 15 m. The road crosses the Japed La. Both ascent and descent of this pass, the highest on the road, are very steep and arduous, and the road is bad. Reya is a village and Rest House on the Nge Ch'u. No other houses or cultivation. "Ula" is changed at Reya.

11 CH'AMDO 15 m. The road crosses the Tama La. On both sides, the last part of the pass is steep, and the road very bad, elsewhere the road is very good. There is a long descent down to the Mekong (Dza Ch'u), which is crossed by the *Szechuen Bridge, and Ch'amdo is a mile further on.

*North of Ch'amdo.

Dimensions:—Breadth of span: E. to W. to centre of piers 22.35 and 24 yards.

Piers: 34 yards long by 7 yards broad.

Height of roadway above water, winter level, 14 yards.

Breadth of roadway: 10 feet.

12. After Route 62-F., enter the following as Route No. 62-G.:—

Route No. 62-G.

YILUNG TO GERGE GÖNCHEN (*via* DZÖGCH'EN (JOKCHEN)).*(Alternative to Stages 1 to 4, Route No. 62-E.)**Authority.*—VICE-CONSUL, TACHIENLU, MAY 1917.

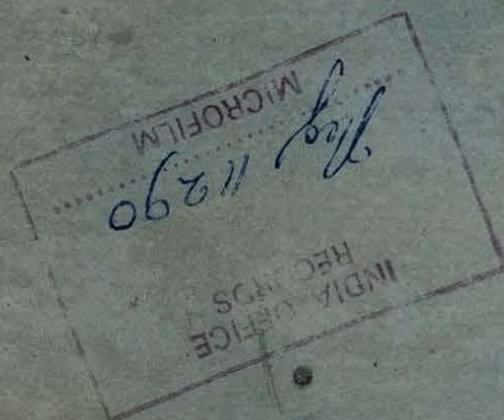
71½ miles.?

5 stages.

- | | | | |
|--|--|----------------------------|---|
| 1 | CAMP | 18 m.? | The road follows the left bank of the Yi Ch'u all day and is excellent. No houses or cultivation. |
| <hr/> | | | |
| 18 m.? | 2 | DZÖGCH'EN (JOKCHEN) | 17 m. The road passes a small lake, the Muring Ts'o, and then crosses the Muring La, a high but not very arduous pass, 90 li (22½ m.) from Yilung. A descent through grass country leads to Dzögch'en (Jökchen), 50 li (12½ m.) further on. There is an official halt at Droruk'o, 3 miles distant. "Ula" is changed here. Road very good except at the pass. |
| <hr/> | | | |
| 35 m.? | 3 | CAMP | 12 m.? |
| 47 m.? | Shortly after Dzögch'en (Jökchen) a road branches off to Tengk'o and Shih-ch'u; further on the Le La pass is ascended. Up to here the road is good. The Le La is a fairly easy pass but stony in many places. From the pass the road, which deteriorates descends to a wooded ravine where camp is made. | | |
| <hr/> | | | |
| 60 m.? | 4 | K'OLNDO | 13 m.? |
| The road continues down a wooded valley eventually joining the Zi Ch'u, and, at the end of the stage, K'olondo is reached. A few houses and some cultivation are seen. road generally good. Distance from Dzögch'en (Jökchen) over 100 li (25 m.). "Ula" is changed at K'olondo. | | | |
| <hr/> | | | |
| 71½ m.? | 5 | DERGE GONCHEN | 11½ m. See Stage 3, Route No. 62E. |

13. Renumber Route 62-D (corrections, December 1912), as Route No. 62-H, and Route 62-E (corrections, December 1912), as Route 62-I.

14. *Delete* Route No. 62-F (corrections, December 1912).



ROUTES IN TIBET.

3